G3 Drum-Module

Model	G3	
Document	Owner's Manual	
Version	1.0	
Release Date	2022-10-24	



Manufacturer



Please read this owner's manual carefully before operating the device and take note of the safety information! Keep this document available for immediate reference.

Lesen Sie die Bedleifung v nahme und beachtern Sie die Sicherhe 1862 Adorf Bewahren Sie die Anleitung zum Nachsch **GERMANY**



Download the complete owner's manual at

gewadrums.com/service

Eine Bedienungsanleitung zum Download gewamusic.com:

https://www.gewamusic.com/downloads

www.gewadrums.com

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Dear Valued Customer,

Thank you for purchasing our top-quality GEWA G3 Module!

The G3 is an E-Drum that gives you a highly impressive sound and playing experience, while offering a huge extra set of additional and easy-to-use sounds and features.

Your safety is very important to us! Please read the safety information carefully and take good note of the given information.

We suggest you keep this user manual in a safe and known place, and to pass it on to a new owner or user of your G3 Module

1 SAFETY INFORMATION

The manufacturer cannot be held liable for injury to persons or damage to property resulting from incorrect use of the device!

Only use your digital drum set in accordance with the instructions given here!

1.1 SYMBOLS USED IN THE MANUAL

The following symbols are used to signal risks and to give advice:

Level of Risk	Symbol		Definition
Serious Injuries		WARNING	Failure to observe the following safety instructions can result in serious injury or death.
Electrical Hazard	A	WARNING	Failure to observe the following safety instructions can result in serious injury or death by electrical hazards.
Minor Injuries and device damage	\triangle	CAUTION	Failure to observe the following safety instructions can result in minor injuries and/or device damage.
Notes	0	NOTE	Helps to avoid injuries and damaging of the drum console.
Tip	i	HINT	Hints for optimized handling of your GEWA digital drum console.

1.2 SAFETY PRECAUTIONS

Always follow the safety precautions given here. Non-compliance with the safety precautions may have serious consequences:

- Serious injury or even lethal accidents
- Electrical Hazard
- Short circuits
- Damage
- Fire

Further and other risks are possible; therefore, this list does not claim to be complete.



Electrical Hazard



Do not expose the apparatus to dripping or splashing liquids.

Never clean the digital drum console with a wet cloth.

- Do not place objects filled with liquids, such as vases or glasses, on or near the apparatus.
- The mains plug shall remain readily operable. Never use damaged power supplies/cables.



- Install power supplies/cables firmly to avoid the risk of damage. Even low electric currents can lead to serious injuries and even death!
- Never open the drum console.



- Never insert water or liquids into the drum console.
- Never plug in or unplug the console with wet hands and never pull on the cable as it may be damaged.
- If liquids or water accidentally get into the drum console, unplug it immediately. In all the above cases, have the digital drum console checked by your authorized GEWA customer service team.
- Never use damaged power supplies/cables.
- Protect the power cable from being walked on or pinched, particularly at plugs, convenience receptacles, and at the point where they exit from the apparatus.



WARNING

Fire Prevention

- Ensure a minimum distance of 7 cm (three inches) around the apparatus for sufficient ventilation.
- Ensure that the ventilation is not impeded by covering the ventilation openings with items such as newspapers, table-cloths, curtains, etc.
- Do not place naked flame sources, such as lighted candles, on the apparatus. Candles or oil lamps can tip over and cause a fire.
- Never bring open fire on or near to the digital drum set.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Use the apparatus only in moderate climates (not in tropical climates).



WARNING

Unusual Behavior



- · Switch the drum console off or unplug it immediately if:
 - there is a sudden loss of sound while the drum console is in use.
 - the console emits an unusual smell or smoke.
- It is essential to have the drum console checked by your GEWA customer service team.



CAUTION

Damaging the Apparatus

- Mismatching electrical voltages can damage the console. Operate the digital drum console only within the correct voltage range (marked on the corresponding specs plate).
- Only use the power supply and power cable supplied with the device.
- Never place the power cable near to heat sources such as radiators or radiant heaters.
- Do not sharply bend the cable, or damage it in any way (! risk of cable break!).
- Position the power cable in a way to avoid tripping or anything heavy rolling over it.
- Do not place any objects on the power cable.
- Check the power supply regularly and remove any visible dust or dirt on the device.



Damage by Thunderstorms



- Thunderstorms can produce electrical surges that are able to damage your drum console.
- During thunderstorms, or if you will not use your drum console for a while, we suggest you unplug your console from the electrical system completely.

PROPER HANDLING 1.3

- Please keep your digital drum console in a dry environment.
- Audio accessories for audio playback (connected to the in- or output of the console) or for data communication can be connected. Accessories must match the relevant technical specifications (see "Technical Data" section).
- Only and always use GEWA certified power adapters, and make sure that they are properly attached and connected. The power supply used must also meet the country's voltage specifications (check plate on the adapter).
- The digital drum set is only to be used as originally delivered. Any modifications to the drum set are not allowed and result in a complete loss of warranty.
- The digital drum set must be set up on a safe, weight-bearing, stable and even ground or platform able to support the weight (please therefore see "Technical Data" section).

1.4 IMPROPER USE (EXAMPLES)

- Exposing the digital drum console to an open air or moist/rainy environment.
- Setting up the digital drum set in damp rooms.
- Using power supplies not authorized by GEWA music or connecting the console to an electrical outlet despite mismatching local voltage specifications.
- Playing the digital drum set close to electrical or electronic devices, such as stereo systems, TV sets, radios
 or mobile phones. These devices can cause interference and seriously effect and decrease the sound quality of your GEWA digital drum set.
- Using extensively long audio leads can likewise interfere with the sound quality.
- Transport and setup up in conjunction with strong vibrations and shocks, dust and heat exposure (e.g.in
 vehicles or direct sunshine or both), should also definitely be avoided.
- Playing on the display with drumsticks or other solid objects can damage the protective glass. Only use
 your fingers and ensure enough distance between the module and the connected equipment.



The manufacturer cannot be held liable in case of damages in the following cases:

- Non-compliance with the safety instructions
- Improper handling
- Connecting incompatible in/output devices etc. or other 3rd party interface devices.

1.5 CE LABEL



CE Is in conformity with the relevant Union harmonisation legislation:

Directive 2014/53/EU

Standards to which conformity is declared:

EN55032:2015

EN55035:2017+A11:2020

EN61000-3-2:2014

EN61000-3-3:2013

EN301489-17:V3.2.4

EN62368-1:2014+A11:2017

Compliance with the above directives is confirmed by the CE label on the device. The declaration of conformity can be viewed at the following address:

GEWA music GmbH Oelsnitzer Straße 58 08626 Adorf GERMANY

1.6 FCC LABEL/FCC MARK



This product is certified by the Federal Communications Commission (FCC) and is identifiable by its FCC-ID: 2APTV-GEWAG3. It contains a modular approved transmitter module with FCC-ID: A8TBM64S2. This information is also shown on the permanent label at the bottom side of each device.

RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment has low levels of RF energy that is deemed to comply without maximum permissive exposure evaluation (MPE).

This Class B digital device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: Any changes or modifications not expressively approved by GEWA music GmbH could void the user's authority to operate this equipment.

REGULATORY INFORMATION - CANADA

ENGLISH

This product is certified by Innovation, Science and Economic Development (ISED) and is identifiable by IC: 23946-GEWAG3. It contains a modular approved transmitter module with IC: 12246A-BM64S2 as well as license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s).

ICES-003 Class B Notice

This Class B digital device complies with Canadian CAN ICES-003. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This information is also shown on the permanent label at the bottom side of each device.

RF Exposure Statement

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment and meets the RSS-102 of the ISED radio frequency (RF) Exposure rules. This equipment has low levels of RF energy that are deemed to comply without maximum permissible exposure evaluation (MPE).

Standards to which compliance is declared can be found under the following links:

RSS-Gen: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08449.html RSS-102: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html RSS-247: http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10971.html

FRANÇAIS

Ce produit est certifié par Innovation, Sciences et Développement Économique (ISDE) et est identifiable par IC: 23946-GEWAG3. Il contient un module d'émetteur approuvé avec IC: 12246A-BM64S2 ainsi que des émetteur(s)/récepteurs(s) exempts de licence qui sont conformes aux CNRs applicables de Innovation, Sciences et Développement économique Canada.

Avis NMB-003, Classe B

Le présent appareil numérique de la classe B est conforme à la norme NMB-003 d'Industrie Canada. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Ces informations sont également affichées sur l'étiquette permanente en bas de chaque dispositif.

Déclaration concernant l'exposition humaine aux RF

Cet équipement est conforme aux limites d'exposition humaine aux radiofréquences d'ISDE exposés pour environnement contrôlé et satisfait au CNR-102. Cet équipement possède niveaux d'énergie de radiofréquences bas que sont considérés d'être conforme sans l'évaluation des valeurs d'intensité maximale de champ des RF.

Conformité déclarée aux normes suivantes:

CNR-Gen: http://www.ic.gc.ca/eic/site/smt-gst.nsf/fra/sf08449.html
CNR-102: http://www.ic.gc.ca/eic/site/smt-gst.nsf/fra/sf01904.html
CNR-247: http://www.ic.gc.ca/eic/site/smt-gst.nsf/fra/sf10971.html

RECYCLING



In case your digital drum console needs to be disposed, take it to your local community waste management service location

e.g. disposal companies, recycling centers).

The displayed symbol requires that devices labeled with this symbol must be disposed of separately from household waste. Under the Electrical and Electronic Equipment Act, owners of devices marked with this symbol are required by federal law to deposit Electrical waste and electronic equipment in a separate waste collection.

Please help us with your contribution to protect the environment by not depositing your old electric equipment with the general household waste.

2 SCOPE OF SUPPLY GEWA G3

The GEWA G3 Drum Set is made up of the following parts. Please check the package contents is complete:

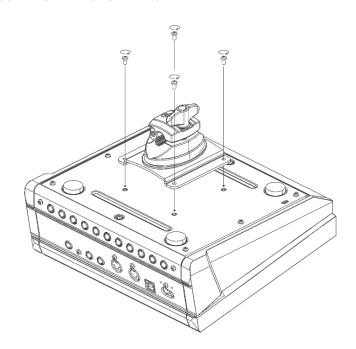


3 Mounting instructions

3.1 MOUNTING THE MODULE BRACKET

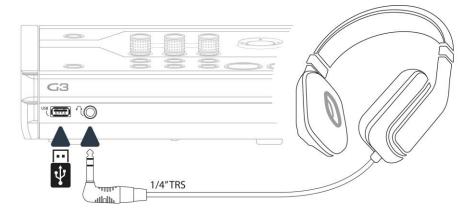






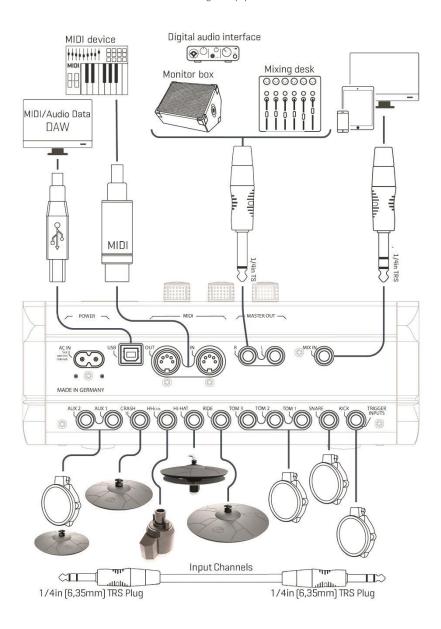
3.1 CONNECTING EXTERNAL EQUIPMENT TO THE G3 MODULE

3.1.1 FRONT



3.1.1 REAR PANEL

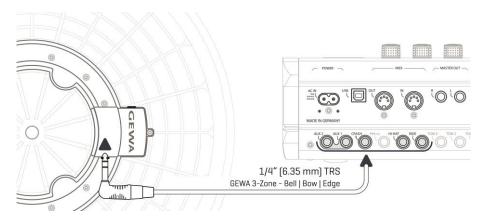
Make sure that the unit is switched off before connecting the equipment.



3.1.2 CYMBALS

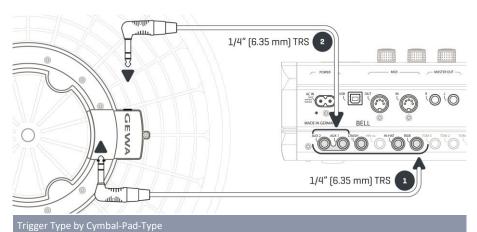
3.1.2.1 **GEWA CYMBALS**

GEWA cymbals are equipped with two stereo jacks (6.35 mm - 1/4" TRS standard). In operation with GEWA modules, only the jack that is closer to the center hole of the cymbal is relevant.



3.1.2.2 **OTHER MANUFACTURERS**

Connect analog sensors from other manufacturers as shown in the diagram below. Also note the selection at [TRIGGER SETTINGS] -> AUX1 -> [F1] -> Trigger Type (3-Way) in the module:



Cymbal Type	Components	Components	Trigger Type (Trigger Settings)	
	1	2		
1-Zone cymbals	Edge	None	Single/Dual	
2-Zone cymbals	Bow Edge	None	Dual	
3-Zone cymbals without separate bell output	Bow Edge Bell	None	Dual	
3-Zone cymbals with sepa- rate bell output	Bow Edge	Bell	3-Way	
NOTE	For the correct operation of cymbals from other manufacturers, select the app ate trigger type in the module (Look at "Trigger Settings" in the owners manu			

3.1.2.3 ANALOG CYMBAL PADS WITH SEPARATE OUTPUT FOR THE BELL

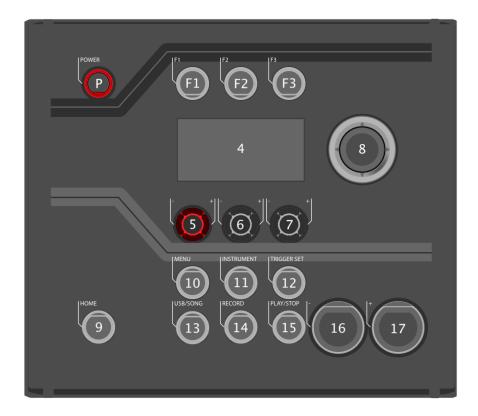
Cymbal pads with their own output for the bell can be connected to GEWA modules in various ways. See the table below for all possible combinations of **Bow/Edge** and **Bell** input channel assignments:

GEWA input assignments for cymbals with separate bell channel				
	Cymbal components (sensor)			
	Bow/Edge Bell			
Input (Input channel)	Aux 1	Aux 2		
NOTE	Cymbals with a separate bell socket require 3-Way trigger type. The setting is made in the trigger settings on the Bow/Edge input channel. (AUX1-channel). (Look at "Trigger Settings" in the owners manual)			

Connect other analog pads according to the labelling of the trigger inputs on the back of the module.

4 **USER INTERFACE**

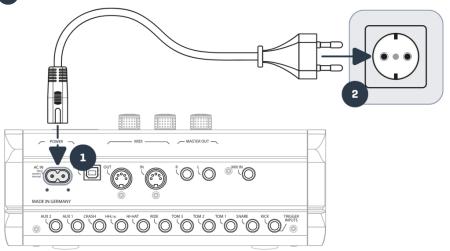
The function of the dials and keys may vary depending on the active level based on the software. This section describes the default assignment when the unit is started.



No	Action	Name	Description	
P	(Zm)	Power button	Switch device on and off.	
F1	(Gr)	Function key 1	[Variable application] The function is shown in the upper left field of the display.	
F2	(Gr)	Function key 2	[Variable application] The function is shown in the upper middle field of the display.	
F3	(In)	Function key 3	[Variable application] The function is shown in the upper right field of the display.	
4		OLED Display		
5	C	Dial 1	[Variable application] The function is shown in the lower left field of the display.	
6	C	Dial 2	[Variable application] The function is shown in the lower middle field of the display.	
7	C	Dial 3	[Variable application] The function is shown in the lower, right field of the display.	
8	(Gr)	Selection and confirmation button [ENTER]	[ENTER]; Start/Stop – Metronome & basic display navigation.	
9	(Zin)	Home	Start up screen	
10	(Zin)	Menu	Opens the menu for basic settings, effects, mix and MIDI settings.	
11	M	Instrument	Opens the menu with pad-specific sound parameters.	
12	(Zm)	Trigger Set	Opens the menu for trigger settings.	
13	(Zm)	USB/Song	Play your audio files via USB-Stick.	
14	(Zm)	Record	Record all audio signals that are audible in the master output.	
15	(Zin)	Play/Stop	Starts and stops selected songs from USB-stick.	
16	(Zin)	[-] Key	Different applications depending on what is shown in the display.	
17	(Zin)	[+] Key	Different applications depending on what is shown on the display.	

SWITCHIG THE DEVICE ON AND OFF 5

- Connect the supplied mains cable to the AC IN socket on the back of the unit. Follow the safety instructions (Safety Information)
- Insert the mains plug into the socket.



- When the mains cable is connected, the [Power] key lights up red. The unit is in stand-by mode. Press the [Power] key to start the unit.
- Wait while the unit starts up.
- To save energy, the unit has the "AUTO OFF" function. With the factory setting, the unit shuts down automatically after 30 minutes of inactivity. You can change this setting at any time in [MENU] → SETUP → Auto Off

5.1 ICON LIST

G3 Symbols		
Symbol	Descriprion	Categorie
- ⊗⊗	Master Out	Output
-	Headphone	Output
J.	Metronome-Tempo	Click
>-000	Accent	Click
⊫ii	Songplayer volume	Mix
77	Metronome volume	Mix
•	Panning	Mix
●	MIX IN	Mix
+‡+	Using Navigation-Button [8]	Routing
		Song Player
J5	Song-File	Songplayer
	Folder	Songplayer
47	Loop function	Songplayer
4⇒ (a-	Starting point set - Loop	Song Player
ආ [A−B]	Loop – Active	Song Player
		Preset Handling
C +	Abort / Back	Navigation
	Load	Navigation
B	Save	Preset Management
Z.	Edit	Navigation
[+ □033	Load from USB-stick	Navigation
•	Factory Preset	Navigation
2	Open	Navigation
♦	Delete letter	Navigation
⊅:≣1Ψ	Scroll list	Navigation
		Trigger Select
9	Zone - Head	Trigger Sensor
0	Zone – Rim	Trigger Sensor
0	Zone – Bow	Trigger Sensor
0	Zone – Edge	Trigger Sensor
(0)	Zone – Bell	Trigger Sensor

G3 Symbols		
+	Hi Hat	Trigger Sensor
F 7	Active Zone	Settings
		Trigger Bank
0	Trigger Bank - Kick	Category
	Trigger Bank - Pad	Category
0	Trigger Bank – Cymbal	Category
+	Trigger Bank – Hi-Hat	Category

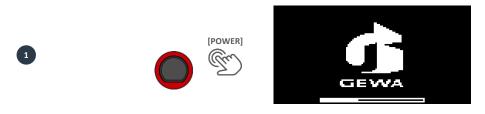
6 **BEFORE YOU START...**

This section gives a brief introduction to important global settings of your GEWA G3 Module.

WELCOME WIZARD / START-ASSISTANT 6.1

At the first start - and after every factory reset - you are offered configuration help so you can quickly and easily set your G3 module to the basics. Of course you can quit the process by pressing [F3] [CANCEL] and set it manually.

For manual setting, read the following chapters!



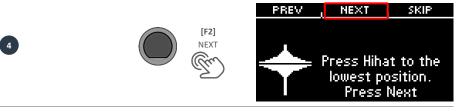
Press [F2] [START].



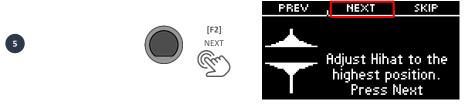
Now select your trigger setup with the navigation keys [8] and confirm the selection with [F2].



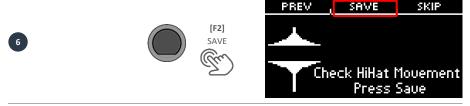
Press the Hi-Hat together with your foot and press [F2] "NEXT".



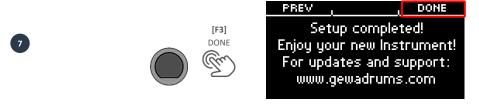
Open the Hi-Hat completely and press [F2] "NEXT".



Test the Hi-Hat and press [F2] "SAVE".



Setup completed. Press [F3] "DONE".



6.2 TRIGGER SETUP

Your GEWA Drum Console provides trigger presets for different available pad configurations. If you have purchased your G3 with a prepacked pad configuration, choose one of the following setups for satisfactory trigger performance:

GEWA G3 STUDIO GEWA G5 STUDIO I GEWA G5 PRO

Should you use the G3 or G5 module with the pad-configurations of the G9, then please select one of the following trigger presets:

GEWA G9 STUDIO | GEWA G9 PRO 5 | GEWA G9 PRO 6

Observing the safety instructions of the Quick Start or operating instructions, proceed as follows:

Turn on the power by pressing the [POWER] [P] button.









Press the button [TRIGGER SET.].









Press [F2] "SETUP".







Press [F1] "PRESET"







Use the dial [5] or the navigation keys [8] to select your GEWA set from the list and confirm via [F1]. The process is now complete and your GEWA drum set is optimally tuned to the G3 module.



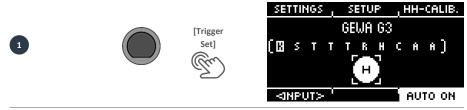




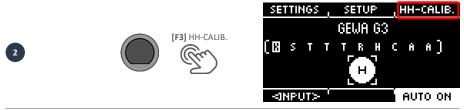
6.3 HI-HAT CALIBRATION

The Hi-Hat is the most complex instrument of a drum kit. It requires a particularly good tuning between hardware and software to produce the best playing results. Proceed as follows to calibrate the Hi-Hat.

Press [12] [TRIGGER SET].



Press [F3] "HH-CALIB".



Press the Hi-Hat together with your foot and press [F2] "NEXT".



Open the Hi-Hat ompletely. Confirm the action by pressing the button [F1] "FINISH".



Now the Hi-Hat is fully calibrated and playable. With the Hi-Hat symbol, you can directly test whether the mechanism works. Then confirm the setting by pressing the button [F1] "DONE"



If you want to leave the calibration without saving, press the button [F3].

USER INTERFACE - BASICS 7

7.1 **GENERAL FUNCTIONS**

The G3 module is equipped with buttons and dials that make it easy for you to operate.

You can reach each main menu by pressing the corresponding button on the module. To exit a menu, you can press another menu button. If you are in a submenu, then you can go back one level at a time by pressing [F3]

You can also use the navigation keys [8] for operation. Use the keys to make a selection in the lists: DOWN [∨]; UP [∧]; LEFT [≤]; RIGHT [≥]



The black push button in the center is the [ENTER] button and the start/stop button for the metronome/click.



You can, for example, change drum kits in the home menu with the [+] and [-] buttons ([16 & 17]). You can also change parameters in other menus.

7.2 LOADING AND SAVING FROM PRESETS

In some menus you can load presets or save or rename your own user presets. In the following points, you can see examples of the function and operation.



As soon as you make changes to the settings that are not automatically saved, a [*] is shown next to the corresponding name to indicate this. Save your changes accordingly before (!) changing the drum kit preset. Unsaved settings will otherwise be discarded.

7.2.1 LOAD

- Use the dial [5] or the navigation control [8] to select the desired preset from the list.
- Press the button F[F1] or [ENTER], for loading the preset.



7.2.2 SAVE

- Presets marked with the symbol
 cannot be overwritten. Please select a free user slot from the list and press **[F2]**.
- User slots that have already been saved can be overwritten or renamed by pressing [F2].



7.2.3 NAME

- Use the navigation keys [8] or the dial [6] <CHAR> to select the desired character.
- Press [ENTER] to confirm the respective character.
- To change the cursor position, use the dial [5] <CUR>.
- The uppercase and lowercase letters, as well as special characters, can be selected by using the dial [7] ABC abc.
- Delete individual characters by pressing the button ([F2].
- Cancellation is possible at any time by pressing the button [F3].
- Save the file name by pressing the button 🖪 [F1]





HOME Home

The start screen with the most important functions for playing and practising. The active drum kit is shown in the middle of the screen. If the number of the drum kit is marked with an asterisk, the parameters of the kit have been changed. To keep the settings, save the preset before switching to another preset.

Functions

Drum Kit choice

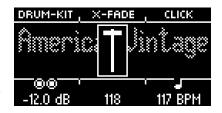
Here you have several options:

- Press [F1] to open the drum kit browser. You can then select a kit from the list using the arrow keys [8] or the dial [5]. Confirm your entry with [F1] or [ENTER].
- Press the [+] and [-] keys to scroll through the kit list.
- Use the arrow keys [8] to move to the next kit. Use the [♥] & [∧] keys to change presets in steps of 10.

Changing the Snare Rim properties

Define whether you want to use a cross-stick (X-Stick), a rimshot or a dynamic combination of both (X-Fade).

- Tap the [F2] key repeatedly to select the corresponding function.
 - X-Fade -> X-Fade (Edit) -> Rimshot -> X-Stick
- If "X-FADE" is selected, then press [F2] again to set the desired threshold with the dial [6].
 The threshold value determines the change between the X-stick and the rimshot.







Metronome settings

You can start and stop the metronome at any time by pressing [ENTER]. You can also switch to the detailed metronome level with [F3]. The field at the bottom right of the screen also flashes

- Turn the dial [7] to select the tempo.
- Touch [F3] to open the metronome editor. Here you can change the time signature, the rhythm (interval), the click volume and many other metronome settings.



Volume settings

Use the dial @@ [5] to select the volume for the two master outputs.

Use the dial ([6] to select the volume for the headphone output.





Set the headphone volume to a low level before use to avoid damaging your hearing. Especially with inear headphones, the volume is perceived differently and it can cause hearing damage if the volume is too high.

8.1 DRUM KIT PRESETS



OME → [F1] Drum Kit

On the **Home** screen, you can access the entire list of drum kits by tapping **[F1]** (Drum Kit). By default, the active drum kit is highlighted in the list.

All drum kits can be managed in this window.

Presets that are factory-installed are marked with a □ sign. Self-created presets are marked with a "U". Example: "U001"

Press [F3] to exit the menu.

Functions

Category	Load	Save / Overwrite
☐ Factory Preset	Ŧ	
User Preset	Ŧ	6
Action	Press [F1]	Press [F2]

After loading a drum kit, you are automatically redirected to the HOME menu.

You can find a detailed description of how to **load presets**, save and overwrite at:

Loading and saving from presets.



As soon as you make changes to the settings that are not automatically saved, a [*] is displayed next to the corresponding name to indicate this. Save your changes accordingly before (!) changing the drum kit preset. Unsaved settings will otherwise be discarded.



SNARE STYLE - RIMSHOT, RIMCLICK & X-FADE SENSITIVITY



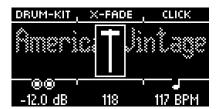
X-Fade

You can set a fixed or variable sound for the snare rim by pressing the [F2] key several times:

- Rimshot
- 2. X-Stick
- X-Fade = A dynamically controlled function that switches between a cross-stick and a rimshot, depending on the strength of the strike.



X-Fade EDIT = A window opens with a fader. Now you can set the threshold value that suits you with the dial [6]. The window closes automatically after 2 seconds.



8.3 METRONOME SETTINGS / CLICK



Home → [F3] Click

This view contains all metronome functions. In the middle of the display you see the set tempo in beats per minute (bpm). The highlighted number on the right side of the screen shows the current count of the set time signature (bottom centre - TIME SIG). If activated, the ACCENT symbol (>-pup) on the left side of the display shows whether the first beat is emphasised or not.

If the tap channel function is switched on, the corresponding channel is also displayed.

Start and stop the metronome by pressing the [ENTER] key [8].

Setting the tempo (bpm)

- With the navigation keys [8]:
 Left [\leq] and right [\leq] for steps in 1 bpm per key tap.
 - **Down** [$\mbox{$\mbox{$\mbox{$$W$}$}$}$] and **up** [$\mbox{$\mbox{$\mbox{$$$$}$}$}$] for steps in 10 bpm per key tap.
- Alternatively, the tempo can also be adjusted with the [-] (22) and [+] (23) keys.



Parallel to this, you can select a trigger input (pad) with which you can determine the tempo by playing on the pad (tap input).

The tap channel settings can be found under "Options" [F1].



[ENTER] = START & STOP

Options

When you press the [F1] key, the full list of available metronome settings opens.

For some of these functions, a simplified setting option is shown on the display. Turn the dials [5], [6] and [7] to adjust the values or scroll through the sub-menus to set the time signature, rhythm interval or click volume.

Press the Button [F2] "TAP" to tap the tempo.

Interval / Rhythm interval

Use the dial [5] to set the interval.

Time Sig

Scroll through the preset time signatures with the dial [6]. For advanced settings, see [F1] [OPTIONS].

Click Volume

Adjust the volume of the metronome sound.

To exit the metronome function and return to the home screen, press the [F3] key.



Set the metronome volume to a low level before use to avoid damaging your hearing. Especially with inear headphones, the volume is perceived differently and it can damage your hearing if the volume is too high.

8.4 OPTIONS



Click-Options

Navigate through the list with the dial [5] or the navigation keys [8]. The selected function is highlighted by a white bar. If there are advanced editing options for an entry, you can adjust them further with the dial [7] or by pressing [ENTER].

Accent One (3-000)

Switch between "on" and "off" by pressing [F1]. When the function is on, the Same symbol in the main window is highlighted and the first beat is emphasised.

Sound

By pressing [F2] you can choose between six pre-installed metronome sounds.

Visual indicator

Even if you stop the metronome, you will continue to receive visual feedback of the preset tempo. Switch the function to "off" to only receive visual feedback while the metronome is switched on.

Time Signature

Scroll through the preset time signatures.

The most frequently used time signatures are at the front. Press [ENTER] to enter the editing mode. Here you can also set special time signatures.

Use the dial [5] [<COUNT>] to select the time signature, Use the dial [6] [<PULSE>] to select the pulse.

See the illustration on the right

Confirm your entry with *** [F1]** or cancel the process with **[F3]**.

Rhythm interval

You can choose between six different intervals: 1/4 | 1/8 | 1/12 | 1/16 | 1/2 | 3/8

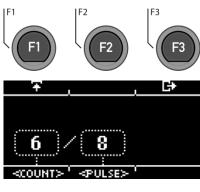
Tap channel on and off

Switch your selected tap channel on and off.

Select Tap input / Tap channel

Select the input you want to use to determine the tempo in the tap function.







Time Signature

To return to the metronome main screen, press [F3].

9 INSTRUMENT

The Instrument menu contains all sound options. You can create your own drum kit presets and modify the drum kit presets. For example, change the individual pad sounds, tune them and add effects. It is also possible to add equalizers and compressors to each pad and to select a second sound for each channel. The permanently installed drum kit presets are a good starting point.

All available options are part of the drum kit parameters and affect the level of the pads and pad components. Changes to the settings are saved by saving the drum kit.

First select the desired input channel and the zone of the pad to be able to edit the parameters.



When you make changes to a preset, they are not automatically saved. Changes are marked with an asterisk [*] next to the drum kit name. Save your changes under:

[HOME] → [F1] "DRUM-KIT" → [Choose a User-Preset-Slot] → [F2].

If you do not save and change the drum kit preset, all changes will be reset to the last saved state.



INSTRUMENT

Instrument

You always see the currently loaded drum kit in the upper part of the display.

With the dial [5], you can select the respective input (pad or cymbal) that you want to edit.

Select the respective zone with the dial [6].

You can also use the Auto Detect function [7]. If this is activated [AUTO ON], then when you play the respective pad, its channel is also selected automatically.

In the header you will find the setting options for the

- Sound selection and editing [[F1]
- Setting of the channel-related equalizer and compressor [F2]
- Setting of the 2nd sound [F3]

Press [HOME] to return to the main screen. The changes made in this screen are saved temporarily - even after restarting the unit. Save the drum kit to save these changes permanently or change the kit to discard previous edits.





Under the direct access [TRIGGER SELECT] you can determine what type of pad or cymbal is placed on the input. Example: Cymbal = Edge, Bow, Bell

9.1 SOUND EDITING



Instrument

In the view you now have the possibility to edit or exchange your loaded sound.

Functions:

- [F1] [FX SEND] Mixer to add effects to your sound.
- [F2] [SOUND] Sound selection for the selected input.
- [F3] ☐ Back to INSTRUMENT main menu

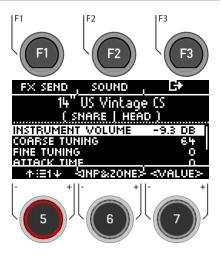
The display window is always overwritten with the currently loaded sound (e.g. 22" Brooklyn twenty-two) of the selected zone (KICK I HEAD).

You will find the parameters that you can change in the list.

Use the dial [5] or navigation keys [8] to select the parameter.

You can also select the **input and the zone** on the level with the dial **[6].**

To change a value, use the dial [7] or the navigation keys [8].



9.1.1 INSTRUMENT VOLUME

This volume control affects the basic volume of the currently active **pad and zones**. In the [MIX] menu, you can mix the preset in relation to the master outs.

9.1.2 COARSE TUNING

This control allows a coarse tuning of the drum in steps of semitones up and down.

9.1.3 FINE TUNING

From the selected semitone, you can fine-tune the pitch, which allows fine-tuning by a quarter tone (50 cents).

9.1.4 ATTACK TIME

Change the "attack" of the drum by setting a low value for a direct and tight attack sound and a high value for a rather soft attack sound. This way, in the case of a snare, you can also simulate different snare wire tensions.

9.1.5 RELEASE TIME

Controls the length of the sustain (decay). In this way, the dampening of an instrument can be simulated. The natural sustain of the DRY sample (without effects) shortens in low dial positions and sounds longer in high dial positions.



FX Send

The Ambient [AMB], Instrument Reverb [I-REV], Room Reverb [R-REV] and Multi Effects [MFX] controls allow you to mix the individual effects.

The effect is only applied to the selected input. The global change can be found under

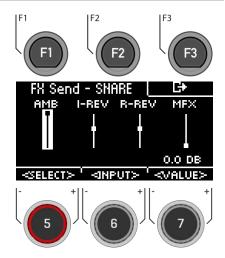
[MENU] → [F2] "MIX".

Use the dial [5] [<SELECT>] or the navigation keys [8] to select the effect to be applied to your drum sound. The fader channel is displayed inverted.

Use the dial [7] [<VALUE>] or the navigation keys [8] to change the strength of the effect.

If you want to apply the effects to other drum sounds in this menu, use the dial [6] [<INPUT>] to switch the different input channels and components.

Press 🗗 [F3] to exit the level or any menu key to exit the entire menu.





As soon as you make changes to the settings that are not automatically saved, a [*] is displayed next to the corresponding name to indicate this. Save your changes accordingly before (!) changing the drum kit preset. Unsaved settings will otherwise be discarded.

SOUND 9.3



Sound

Under [SOUND] you can assign a new sound to each of your inputs and zones.

This gives you the possibility to create your own drum kit presets or to adapt the sound of existing presets.

Of course, you can also use your own .wav file here.

Read chapter "USB Load/Save" on how to import a Wav file.

Select Input



Use the dial [6] [<INP&ZONE>] to select the input whose sound you want to change. The input is displayed at the top left.

Select sound source

Snace Drums

With the dial [7] [TYPE] you can select the sound category from the list that you choose your sound from.

The following categories are available:

Kick Drums I Snare Drums I Toms I Ride Cymbals I Crash Cymbals | Hi-Hats | Cymbals SFX | Percussion 1 | Percussion 2 | Sound SFX | Custom Waves

Select sound



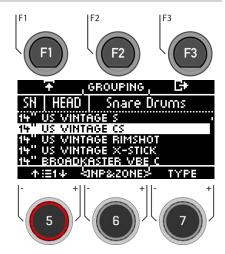
Use the dial [5] or the navigation keys [8] to select the sound you would like to load.

Grouping

With the grouping function, the user can select complete sample sets of an instrument and assign them to the zones, regardless of which zone is active.

Load the sound with the + [F1] or [8] [ENTER] keys

Press [F3] to exit the level or any menu key to exit the entire menu.



9.3.1 SOUND GROUPING

Sound Grouping is used to assign all relevant samples of the instrument sampled from individual sounds directly to the corresponding zones.

For example:

Snare = Snare CS (consisting of two samples = Snare Center & Snare Side) & Snare Rim + X-Stick

Tom Pad = Head & Rim(shot)

Cymbals = Bow, Bell & Edge

Activate the function by pressing [F2] [GROUPING].





Grouping [deactivated]

Grouping [activated]



If you want to use the sound of only one zone, deactivate the sound grouping function in advance.

9.1 EQUALIZER & COMPRESSOR

9.2



EQ I Comp

The G3 module offers a fully parametric 3-band equalizer and a compressor for each input channel/pad. Both features are implemented as insert types in the signal path. In this way, it is possible to individually shape the sound of each connected pad. Pad EQ and compressors are part of the drum kit parameters and a part of the mix that can be heard in Direct Outs and Digital Outs.

EQUALIZER

The EQ on the G3 affects the volume of the three frequency ranges (LOW / MID / HIGH).

COMPRESSOR

With the compressor, a smoother audio output can be achieved. Unwanted peaks can be lowered and soft sounds can be raised.

Select the desired menu item (Equalizer / Pad Compressor) with the dial [5] or the navigation keys [8]. You can change the input channel with the dial [6].

Open the respective menu with [F1] or with [8] [ENTER].

Press [+ [F3] to exit the level or any menu key to exit the entire menu.





The G3 offers a selection of presets to improve your sound, even without a sound engineering background. Load a **preset [F2]** and observe how it affects the sound.

To change individual parameters, select the corresponding menu item from the list with the dial [5] or the navigation keys [8].

Change the value according to your wishes with the dial $\[7\]$ or the navigation keys $\[8\]$.

You can select the inputs with the dial [6].

To exit the menu, press [→ [F3].

Note that all values are only temporarily saved immediately after they are changed. If you want to finally apply the changes, save your drum kit preset.

G3 Presets – Pad EQ und compressor					
Equalizer		Compressor			
■ Line	ar	⊡	Kick Compressor		
High	n boost 3dB	⊡	Snare Compressor		
Bass	s boost 3dB	⊡	Bad Kick		
Stud	lio Snare A	•	Fat Snare		
Stud	lio Snare B	•	Drum Grouping		
Drur	m Attack	⊡	Master A		
Stud	lio Kick A	•	Master B		
Stud	lio Kick B	⊡	Limiter A		
Ope	n Mix	⊡	Limiter B		
• Swe	et Cymbals	⊡	Tube Saturation		





Enabled

Switch function on and off (on / off)

Boosts or attenuates the range of the set band frequency determined by Q and increases or decreases the audio signal by the set dB value.

Q-Factor

Determines the bandwidth/quality of the bell filter. Determines the shape of the curve around the curvature point. High values lead to a sharp change in curvature and a narrow bandwidth. Low values lead to a bulbous curve of the bell, so that more frequencies of the environment are captured by the gain filter (high bandwidth).

Frequency

Adjust the frequency.

Boost

Boosts the compression result to compensate for the level loss caused by ratio. This parameter affects the entire dB spectrum of the track. (Threshold settings are ignored).

Ratio

Determines the compression rate for signals above the threshold.

The higher the value, the more the dynamics are limited

Treshold

Threshold value for the compression. Amplitudes below the threshold remain free of compression.

Knee

Determines the threshold value, how the compression starts. With "Hard", the compressor starts abruptly. "Soft" provides a gradual transition between compression and non-compression around the threshold.

Attack

Sets a delay for the start of compression as soon as a signal exceeds the threshold. This allows amplitudes in the attack to remain unprocessed.

Sets the delay after which the compressor stops working as soon as the level of a signal falls below the threshold again.

9.3 SECOND SOUND



2nd Sound

Second Sound (2nd Sound) allows you to place another sound on top of a pad sound. When the Second Sound is activated, both sounds are played simultaneously.

To activate the 2nd Sound for your input, select the menu item "SECOND SOUND ACTIVE" with the dial [5] or the navigation key [8] and set it to "ON" with the dial [7] [<VALUE>], the navigation key [8] with [ENTER].

All setting options are identical to the main sound: Sound

To keep the settings, save the drum kit before changing the drum kit preset.

For a detailed description of how to load, save and overwrite presets, see: <u>Loading and saving from presets</u>



SOUND SELECTION / SECOND SOUND 9.3.1



2nd Sound Selection

Under [SOUND] you can assign a new sound. Of course, you can also use your own .wav file here.

Select input

Snare Drums

Use the dial [6] [<INP&ZONE>] to select the input whose sound you want to change. The input is displayed at the top

Select sound source

With the dial [7] [TYPE] you can select the sound category from whose list you choose your sound.

The following categories are available:

Kick Drums I Snare Drums I Toms I Ride Cymbals I Crash Cymbals | Hi-Hats | Cymbals SFX | Percussion 1 | Percussion 2 | Sound SFX | Custom Waves



Select sound

14" US VINTAGE S 14" US VINTAGE CS US VINTAGE RIMSHOT US VINTAGE X-STICK BROADKASTER VBE C

Use the dial [5] or the navigation keys [8] to select the sound you would like to load for the input.

Load

Load the sound with the + [F1] or [8] [ENTER] keys

Touch [→ [F3] to cancel the operation and return to the 2nd Sound main screen.

10 TRIGGER SET

In the "Trigger Set" mode, you select the pad triggers (drum sensors) and you can make settings. The G3 drum module can be adjusted to your personal, individual playing style.



When you make changes to a preset, they are automatically saved. You will also find an asterisk [*] next to the trigger setup name. If you want to save your settings in your own preset, then you can do this under: [TRIGGER SET] -> [F1] Settings -> [F2] Preset.



TRIGGER SET

Trigger Set

The first level shows all **input channels**. In the top line, you see the loaded trigger preset

Load and save

In contrast to the instrument level, the trigger settings are saved automatically. If you want to additionally save and name the settings as a separate preset, you can do this in the submenu: [Setup]

[Preset]

An [*] indicates that you have made changes.

Select channel

The middle **row** shows all **trigger inputs**. The inputs correspond to the sockets on the back of the unit.

The active input is indicated by a highlighted letter.

Select the channel with the dial [5] [<INPUT>].

Select zone

The **lower row** shows all **zones** accessible at the active input. When the input is changed, the component icons are updated according to the trigger bank type assigned to the input channel (drums, cymbals or hi-hat).

Change the zone with the dial [6] [<ZONE>].



This **example** shows the activated bow components of Hi-Hat input.

Auto On

Turn the dial [7] to enable/disable automatic channel detection. Play a component on your drum kit and the module will automatically show you the channel that was played.

Settings

Pressing [F1] takes you to a selection of parameters that allow you to customise your G3 module to your own playing style. For more information, see the following chapter.

Setup

With the [F2] "Setup" key you can directly access the selection of triggers and their presets.

HH-Calib.

Press [F3] key to calibrate your hi-hat.



Under the direct access [SETUP] you can determine what type of pad or cymbal is placed on the input. Example: Cymbal = Edge, Bow, Bell

10.1 SETTINGS



TRIGGER SET - [F1]

Settings

In the SETTINGS you can adjust your trigger and all the associated functions to your wishes.

In the upper area you see the selected instrument. With the dial [6] [<ZONE>] you can choose between the zones of the instrument (HEAD I RIM; BELL I EDGE I BOW).

The following functions are available for the selected trigger:

X-Talk

Press [F1] to adjust the trigger behaviour in case of crosstalk.

Preset

Press [F2] to access the presets. Here you can load and save your own trigger presets.

Exit the menu

Press [+ [F3] to go back one step.



Parameter

The following values are available for selection:

GAIN, THRESHOLD, HIGH LEVEL, SCAN TIME, RETRIGGER MASK, TRIGGER TYPE, CURVE ID, DYN LEVEL, DYN TIME.

Use the dial [5] to select the corresponding parameter and change the value with the dial [7].

For more information, see the following chapter.

10.1.1 PARAMETER



Parameter

GAIN

This is an amplification of the received trigger signals before input. Some pads or triggers available on the market produce accurate but weak signals that can be amplified by this parameter before they are registered as an input signal in the G3 module. The construction of the pad used can also contribute to weak signals.

Use the "Gain" function if you are happy with the basic values of your trigger pad, but it does not integrate with the rest of the pads. This function can be useful when connecting pads from other manufacturers.

The gain parameter values range from 0 (no gain) to 8 (maximum gain).

Low gain values tame pads that produce high electrical signals, and higher gain values are suitable for pads that produce weaker electrical signals.

A gain value that is increased too much can lead to losses in the playing dynamics.



THRESHOLD

The value "Threshold" regulates the sensitivity of the input channel, from which velocity a sound is produced. Unwanted, too weak impulses (e.g. triggering of sounds by vibrations) can thus be excluded.

Procedure:

Hit a pad (e.g. snare head) as softly as you would normally like to play, and start with the lowest threshold value (1), and gradually increase until your softest hits are no longer detected. Then go back 1-2 steps in the **threshold** again. In this way, you set the threshold as low as possible and as high as necessary.

With **Switch** inputs (For example, at Edge, Bell, Rim) the procedure works in reverse. Since there is already a permanent low voltage at Switch sensors, the voltage drops when the sensor is pressed/activated. Increase the threshold gradually and select the highest threshold that still causes choke messages.



HIGH LEVEL

Upper, accepted level of the input signal. In conjunction with Threshold, it defines the limits of the range of the input signals.

Signals with levels between Threshold and High Level generate MIDI notes with velocity values between 8 and 127. All signals with levels above High Level generate MIDI notes with velocity 127.

Values between Treshold and High Level define the possible dynamic range.



SCAN TIME

The sampling time of the input signal. Increasing it will worsen the latency and improve the accuracy. Generally, for rubber pads/cymbals, setting Scan Time to 20 (2ms) is sufficient for correct signal level detection. For mesh pads, you may need to increase Scan Time to 30-50 - the larger the mesh type heads, the higher the Scan Time required for correct signal level detection.

Scan Time Parameter Value range: 10-100.



RETRIGGER MASK

Retrigger Mask determines how many milliseconds must pass after a previously detected signal before new signals are accepted - to prevent a "machine gun effect" or false trigger due to vibrations after a beat. As another threshold value, this is one of the most important parameters and it may take some time to find the best value. Ideally, Retrigger Mask should be set as low as possible, with suppression from the "machine gun" effect and false triggers being addressed first by the threshold parameter. In this context, you should only resort to Retrigger Mask if even high threshold values and high dynamic decay times (Dyn Time) cannot turn off the unwanted effects. For DIY pads and cymbals, good Retrigger Mask values are in the range of approx. 4 to 12 milliseconds. High Retrigger Mask values make precise detection of fast drum rolls difficult.

Retrigger Mask Parameter Value range: 1-127



TRIGGER TYPE

If you use pads from other manufacturers, you have the option of matching the sensors (triggers) in the connected pad with the input channels of the G3. Depending on the type of pad, choose from "Single", "Dual" or "3-Way". It is also important to connect pads from other manufacturers correctly.

"3-Way" can only be applied to the AUX1 channel. Please note that the AUX 2 channel is then no longer displayed.

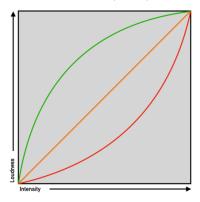


CURVE ID

Here you will find the selection of different trigger curves that significantly influence the response behaviour of the corresponding pad.



The following preset curves are available for selection: Linear, Convex, Concave.



DYN LEVEL & DYN TIME

Dyn Level determines how hard the G3 tries to suppress false triggers, whereas **Dyn Time** determines how long false triggers are suppressed. For most pads with rubber playing surfaces, **Dyn Level** values between 8 and 15 and **Dyn Time** between 8 and 20 should give the best results. For pads with fabric mesh heads, it may be necessary to increase **Dyn Time** to over 20 and up to 60 as the skin diameter increases.

Dyn Level Parameter Value range: 0-15 **Dyn Time Parameter Value range:** 0-60 ms



10.1.2 X-TAIK

X-Talk is a tool to avoid unwanted signals in other pads.

Vibrations can trigger the triggers of other instruments. With X-Talk, you can set a threshold for other triggers, above which they will only react to vibrations in the environment.

Velocity values below this threshold are ignored by the analysis unit (G3 module). This practice comes at a price, however, as the physical effects of two instruments on each other are usually mutual. High X-Talk thresholds counteract low activation thresholds of individual pads (for sensitive players) and any physical problem often requires an increase in X-Talk values on both instruments causing the problem. Check your hardware first and try to avoid physical contact as much as possible before using the X-Talk function.



TRIGGER SET → [F1] → [F1]

X-Talk

SETTING UP X-TALK

If, despite the best possible hardware setup, a pad is receiving interference signals from other pads, first try to identify the pad that is causing the interfering MIDI signals using the X-Talk monitor. Then increase the X-Talk value on both pads to at least 1 (causing pad and receiving pad). If the problem persists, gradually increase the value on the pad that is receiving unwanted signals. It is important that both pads have X-Talk values of at least 1 to make them a member of the X-Talk group. High X-talk values on pads experiencing interference will have no effect unless there is at least one other connected pad with an X-talk value of at least 1. Only increase the X-talk values on the pads that are experiencing problems. To suppress viral MIDI signals, the goal for X-talk values is: as low as possible, and only as high as necessary.

Selecting the trigger input

Use the dial [5] [<INPUT>] or the navigation keys [8] to select the channel whose value you want to change. The selected input is displayed inverted.

7one

With the dial [6] [<ZONE>] or the navigation keys [8], you can select the zone

The selected zone is displayed inverted.

You can choose between:

Upper row = Head or Bow

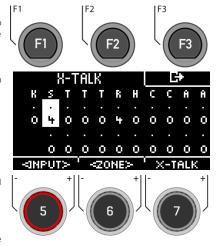
Lower row = Rim or Edge.

Set values

With the dial [7] you can change the value of the input and the respective selected zone.

Exiting the X-Talk Monitor

Press E+ [F3] to exit the level or any menu key to exit the entire menu.





TRIGGER SET → [F1] → [F2]

Save your own preset here and load presets you have created yourself.

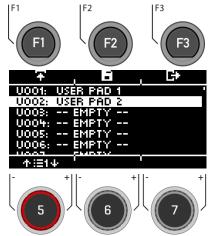
Use the dial [5] or the navigation keys [8] to select an appropriate preset from the list.

To load the preset, press 7 [F1] or [ENTER].

To save your own preset, select a free **USER slot** and press \blacksquare [F2].

Press [+ [F3] to cancel the operation.

For a detailed description of how to load, save and overwrite presets, see: <u>Loading and saving from Presets.</u>



10.2 SETUP

With the [F2] [SETUP] key, you can directly access the selection of triggers and their presets.



Inputs & Components

Here you can see directly which trigger is assigned to which input.

Select Input

Select the input channel with the navigation keys [8] or the dial [5].

To change individual components, press [F2] [BANK] or the [ENTER] key.

Load and save

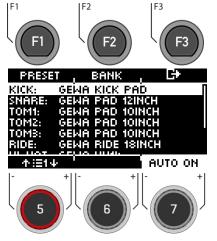
In contrast to the instrument level, the trigger select settings are saved automatically. If you want to additionally save and name the settings as a separate preset, you can do this in the submenu [Preset].

An [*] indicates that you have made changes.

Auto On

Turn dial [7] to enable/disable automatic channel detection. Play a component on your drum kit and the module will automatically show you the channel played.

Exit the trigger selection by selecting another main menu.



10.2.1 SELECTING & CHANGING INDIVIDUAL TRIGGERS/ BANK



Bank

Use the dial [5] or the navigation keys [8] to select the input channel you want to change and press [F2] [Bank] or [ENTER].



Now select the category of your trigger with the dial [5] [<CAT>] or the navigation keys [8].

If you have selected the hi-hat channel, the symbol (hi-hat) is also displayed. 🕈

Confirm your selection with ☐ [F1] or by pressing [ENTER]

Press [F3] to go back one step.



Select the trigger with the dial [5] or the navigation keys [8]. Confirm your selection with [7] [F1] or by pressing

Press [F3] to go back one step.

[ENTER].



10.2.2 PRESET / LOAD & SAVE



TRIGGER SET → [F2] → [F1]

Preset

To make it easier for you to get started with the GEWA F1 instrument, we have created trigger presets for you. Of course, you can also create, save or load your own

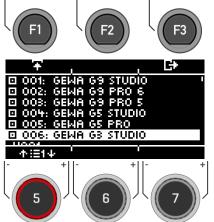
Use the dial [5] or the navigation keys [8] to select a corresponding preset from the list.

To load the preset, press **F** [F1] or [ENTER].

To save your own preset, find a free USER slot and press **F** [F2].

Press [F3] to cancel the operation.

For a detailed description of how to load, save and overwrite presets, see: Loading and saving from presets



10.3 HI-HAT CALIBRATION

The hi-hat is the most complex instrument of a drum kit. It requires particularly good coordination between hardware and software to produce the best playing results.

Proceed as follows to calibrate the hi-hat.



TRIGGER SET → [F3]

Hi-Hat Calibration

Press [12] [TRIGGER SET].









Press [F3] "HH-CALIB".





[F3] HH-CALIB.



Press the Hi-Hat together with your foot and press [F2] "NEXT".









Open the Hi-Hat completely. Confirm the action by pressing the button [F1] "FINISH".









Now the Hi-Hat is fully calibrated and playable. With the Hi-Hat symbol you can directly test whether the mechanism works. Then confirm the setting by pressing the button [F1] "DONE"



If you want to leave the calibration without saving, press the button [F3].

11 MENU

Under "MENU" you can access:

MIX,

EFFECTS,

SOUND-IMPORT,

MIDI- and

SETUP-Menu.

In the following, the individual menus and their functions are explained in detail.



MENU

Menu

Selecting the menu item.

Select the desired menu item with the dial [5], the navigation keys [8] (or, if necessary, by pressing the keys [F2] [F3]).

You can open the respective menu items from the list with L^2 [F1] or by pressing [ENTER].

MIX

Press [F1] MIX to access all volume controls.

EFFECTS

By pressing **[F3] EFFECTS**, you can control all effects of your presets.

USB LOAD/SAVE

Select the menu item from the list to load your own wav samples, import or export backups and drum kit presets.

SETUP

Here you can manage all basic settings and the Bluetooth connection.

MASTER

All settings for routing, MIDI, EQ's and compressors.



11.1 MIX

Under "MIX" you will find the mixers to adjust the volume settings for your G3 module.

You can control the volume of the individual channels of each drum kit preset, control the FX volume and have the option to control the volume of the hi-hat and the outputs.



Not all changes are automatically saved but are part of the drum kit settings. These include the hi-hat volume, the FX level and the mixer for the individual channels of the drum kit. Changes that are not yet saved are marked with a [*] in front of the drum kit name.



Mix

When you open the Menu [MIX], you see the individual channels of the drum kit preset with the corresponding fader view.

Select channel

Use the dial [5] [<INPUT>] or the navigation keys [8] to select the channel you want to change the volume of.

Change volume

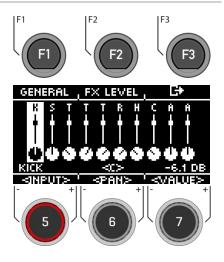
Use the dial [7] [<VALUE>] or the navigation keys [8] to change the volume.

Panning

Below the fader, dials provide feedback indicating the balance control of the individual channel. Adjust the pan setting with the dial [6] [<PAN>].

Exit

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



11.1.1 GENERAL



MENU → [F2] → [F1]

General

In the [GENERAL] menu, you will find the volume settings for the master outputs, the headphones, the mix-in (& Bluetooth), the metronome (click) and the songplayer

00	Master-Out - Volume	
\circ	Headphones - Volume	
◉	Mix-In & Bluetooth - Volume	
\mathcal{R}	Metronome - Volume	
▶II	Songplayer - Volume	

Select channel

Use the dial [5] [<SELECT>] or the navigation keys [8] to select the channel you want to change in volume.

Change volume

Use the dial [7] [<VALUE>] or the navigation keys [8] to change the volume.

Panning

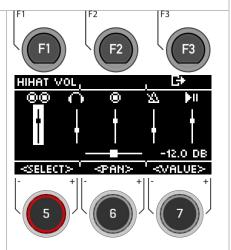
There is a panning setting for the master outputs and the headphones. Adjust it with the dial [6] [<PAN>].

Hi-Hat volume

Press [F1] [HIHAT VOL] to access the Hi-Hat volume control.

Exit the level

Press [F3] to exit the level or any menu key to exit the entire menu.



11.1.2 HI-HAT VOLUME



Hi-Hat Vol

In the [HIHAT VOL] menu you will find the volume settings for the Hi-Hat.

The following are available for selection:

EDGE	Edge	
BOW	Surface	
BELL	Bell	
CHICK	Stepped Hi-Hat	
SPLASH	Generation of a cymbal sound by striking the Hi-Hat quickly with the foot.	

Select zone

Use the dial [5] [<SELECT>] or the navigation keys [8] to select the channel you want to change the volume of.

Change volume

Use the dial [7] [<VALUE>] or the navigation keys [8] to change the volume.

Exit the level

Press [F3] to exit the level or any menu key to exit the entire menu.





FX Level

In the [FX LEVEL] menu, you can change the global effect volumes.

The following are available for selection:

AMB	Ambience (Room)
I-REV	Instrumental Reverb
R-REV	Room Reverb
MFX	Multi Effects

Choose effect

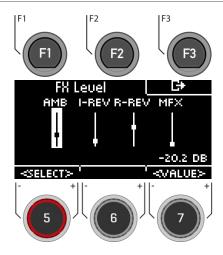
Use the dial [5] [<SELECT>] or the navigation keys [8] to select the channel you want to change in volume.

Change level

Use the dial [7] [<VALUE>] or the navigation keys [8] to change the volume.

Exit the level

Press G* [F3] to exit the level or any menu key to exit the entire menu.



11.2 **FFFFCTS**

The G3 is equipped with four different effect modules, so you can edit your drum sound down to the smallest detail and customise it according to your wishes.



Not all changes are automatically saved, but are part of the drum kit settings. If changes have been made that have not yet been saved, this is marked with a [*].



MENU → [F3]

Effects

When you press the [EFFECTS] button, you first see an overview of all available effects.

Selecting the effect

Select the desired effect with the dial [5] or the navigation

The following effects are available (a detailed description can be found in the respective following chapters):

Ambient

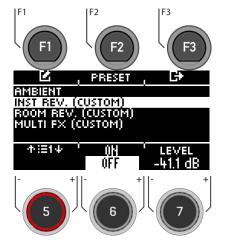
Instrument Reverb (Inst Rev.) Room Reverb (Room Rev.) Multi Effects (Multi FX)

Turning the effect on and off

With the dial [6] you can switch the effect on or off

Volume / level of the effect

Depending on the effect, you can change the volume (dB) or the level (%) with the dial [7]. This is a global function and changes the effect in total. You can also adjust the intensity of the effects for each input channel.



Editing the effect / options

Press **[4]** [F1] or [ENTER] to access the options of the respective channel.

Using presets

Pressing [F2] gives you direct access to available presets or allows you to create your own user presets. This function is not available with "AMBIENT" as it is not a classic effect but part of the recorded drum sound.

Exit the level

Press [F3] to exit the level or any menu key to exit the entire menu.



Ambient

The Ambience module contains **room recordings** made in the **Berlin Funkhaus studios**. Since a room reacts to moving air in a characteristic and consistent way, the possibilities of the parameters are limited by the type of effect.

Ambience controls the time it takes for sound to bounce off an obstacle, resulting in an echo. The effect is designed to have a global effect on the sound of the kit, which follows the assumption that the entire kit is placed in the same room or environment. However, it is possible to adjust the volume of the effect for each pad using the FX Send mixer, which allows you to turn the effect off by dragging the control for the desired pad all the way down.

The following setting options are available:

Select the corresponding parameter with the dial [5] or the navigation keys [8] and change it with the dial [7], the navigation keys [8] or the [+] and [-] keys.



Level

Adjust the volume/level of the effect (globally).

Pre-Delay

Time difference of sound waves, between the direct path from the signal source to the auditory system and the first reflection through obstacles (e.g. walls) to the auditory system.

Switching the effect on / off

Use the dial [6] and switch to [on] or [off].

Exit the level

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



Ambient

Via [FX Send], you can specifically assign the effect to each channel.

Select channel

Use the dial [5] [<INPUT>] or the navigation keys [8] to select the channel you want to change the volume of.

Change volume

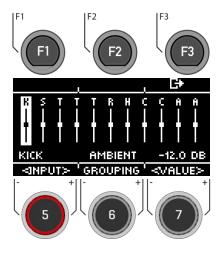
Turn dial [7] [<VALUE>] or press navigation key [8] to change the volume.

Grouping

Turn the dial [6] and activate the GROUPING function. Now you have the possibility, when selecting the tom and cymbal channels, to adjust them up or down as one unit.

Exit the level

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



11.2.2 INSTRUMENT REVERB



Reverb

This module contains classic and generic algorithms for simulating an instrument-specific reverb. Some reverb types are traditionally generated electronically, while others (e.g. Plate) emulate mechanical devices that add artificial reverb to the dry recording.

The difference between instrument reverb and room reverb is conceptual rather than a property.

Does an instrument possess reverb when there is no room? This is certainly a philosophical question. Both modules offer the same parameters except for the gate threshold (Instrument Reverb only). With Room Reverb you can put the whole kit in an environment and with the addition of Instrument Reverb it is possible to add reverb effects to the environment - selectively for each input channel. In this sense, the additional Gate Threshold parameter is artificial in nature and therefore belongs exclusively to Instrument Reverb. The factory presets provided for Instrument Reverb focus on instrument-specific effects but derive their properties from the same parameters and value ranges.





MENU → [F3] → [F1] → [F1]

Reverb

With [FX Send], you can assign the effect volume to each channel specifically.

Select channel

Use the dial [5] [<INPUT>] or the navigation keys [8] to select the channel you want to change the volume of.

Change volume

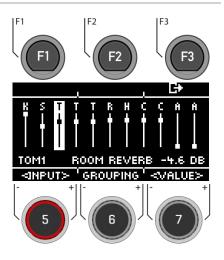
Use the dial [7] [<VALUE>], the navigation keys [8] or the [+] & [-] keys to change the volume.

Grouping

Turn the dial [6] and activate the GROUPING function. Now you have the possibility, when selecting the tom and cymbal channels, to adjust them up or down as one unit.

Exit the level

Press 🗗 [F3], to exit the level or any menu key to exit the entire menu.





Reverb

You can choose from presets, create your own or rename them.

Use the dial [5] or the navigation keys [8] to select a corresponding preset from the list.

To load the preset, press **F** [F1] or [ENTER].

To save your own preset, find a free **USER slot** and press **[F2]**.

For a detailed description of how to load, save and overwrite presets, see: Loading and saving from presets



Reverb

You have the possibility to choose from different reverb types. Use the dial [7], the navigation keys [8] or the [+] and [-] keys.

Plate1 Small Plates

Mechanically generated reverb without early reflections. This is a simulation of a smaller reverb plate with a specific characteristic.

Plate1 Med Plates

Mechanically generated reverb without early reflections. This is a simulation of a medium reverb plate with a specific characteristic.

Plate1 Large Plates

Mechanically generated reverb without early reflections. This is a simulation of a large reverb plate with a specific characteristic.



Plate2 Small Plates

Mechanically generated reverb without early reflections. This is a simulation of a smaller reverb plate with a different characteristic than Plate 1 Small.

Plate2 Med Plates

Mechanically generated reverb without early reflections. This is a simulation of a medium reverb plate with a different characteristic than Plate 1 Med.

Plate2 Large Plates

Mechanically generated reverb without early reflections. This is a simulation of a large reverb plate with a different characteristic than Plate 1 Large.

Room Small

An algorithm that simulates a small room where early reflections are accepted.

Room Med

This is an algorithm that simulates a medium sized room where early reflections are accepted.

Room Large

An algorithm that simulates a large room in which early reflections are accepted.

Hall Small

An algorithm that simulates a smaller concert hall where early reflections and a longer decay than room simulations occur.

Hall Med

An algorithm that simulates a medium-sized concert hall with early reflections and a longer decay than room

simulations.

Hall Large

An algorithm that simulates a large concert hall with early reflections and a longer decay than room simulations.

11.2.2.4 REVERB PARAMETER



MENU → [F3] → [INST REV. o. ROOM REV.] → [F1]

Reverb

You have the option of changing further $\mbox{{\bf parameters}}.$

Select the corresponding parameter with the dial [5] or the navigation keys [8] and change it with the dial [7], the navigation keys [8] or the [+] and [-] keys.

Level

Adjust the volume/level of the effect (globally).

Pre-Delay

Time difference of sound waves, between the direct path from the signal source to the auditory system and the first reflection through obstacles (e.g. walls) to the auditory system.

Pre Highpass

The set value defines which frequencies are sent into the effect. All frequencies below this value are faded out of the reverb effect signal.

Reverb Time

Defines the length of the decay of the reverb tail (decay time).

High Shelf

Raises or lowers the entire treble range of the effect signal (+6/-12dB). You control the effect strength of the boost via the numerical value with dial [6] [Value].

Gated Reverb

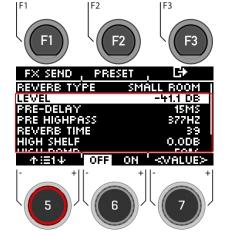
A heavily gated reverb effect that is cut off abruptly. This creates an interesting, often used sound effect, e.g. for the snare.

High Damp

Shortens the reverb time in the high frequency range. Since high frequencies decay faster than low frequencies, this effect is very noticeable in the treble range. Adjust the treble level with dial [6].

Preset

By pressing [F2] you have direct access to available presets or you can create your own user presets.



Turning the effect on / off

Use the dial [6] and switch to [on] or [off].

Exit the level

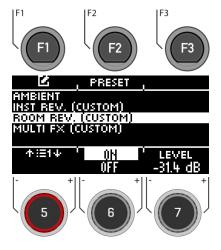
Press [+ [F3] to exit the layer or any menu key to exit the entire menu.

11.2.3 ROOM REVERB



Reverb

The functions available in this module are the generic counterpart to the Ambience module. It offers the same reverb types and parameters as Instrument Reverb, but with a focus on the room-specific qualities of the reverb. Use this effects section to add reverb to a dry sound when ambience samples are not available, or simply to create sounds of traditional recordings with electronically generated reverb. The presets provided for this module reflect different ambient characteristics.





As the functionality of this effect section is identical to that of the Instrument Reverb module, please refer to the previous section for delineation of concepts, explanation of reverb types and parameters.

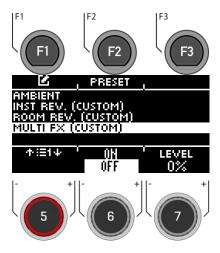
11.2.4 MULTI FX



Multi FX

Effects in this module include anything not related to ambience, instrument reverb or room reverb, such as frequency modulation. The results are achieved by using algorithms to create a specific effect.

In contrast to the reverb modules, the parameters of the multi-effect module change depending on the selected algorithm. The reciprocal effect parameters are drum kit parameters and are stored directly in the kit.





MENU → [F3] → [F1] → [F1]

Multi FX

Via [FX Send], you can specifically switch the effect to each channel.

Select channel

Use the dial [5] [<INPUT>] or the navigation keys [8] to select the channel you want to change the volume of.

Change volume

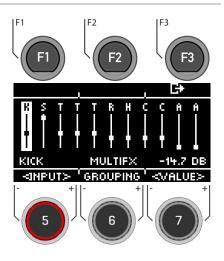
Use the dial [7] [<VALUE>], the navigation keys [8] or the [+] & [-] buttons to change the volume.

Grouping

Turn the dial [6] and activate the GROUPING function. Now you have the possibility, when selecting the tom and cymbal channels, to adjust them up or down together as one unit.

Exit the level

Press [+] to exit the level or any menu key to exit the entire menu.





Multi FX

You can choose from presets, create your own or rename them.

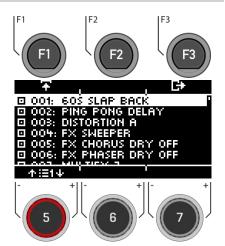
Use the dial [5] or the navigation keys [8] to select a corresponding preset from the list.

To load the preset, press 7 [F1] or [ENTER].

To save your own preset, find a free **USER slot** and press **[F2]**.

Press 🖙 [F3] to exit the layer or any menu key to exit the entire menu.

For a detailed description of how to load, save and overwrite presets, see: <u>Loading and saving from presets</u>.





MENU → [F3] → [MULTI FX] → [F1]

Multi FX

You have the possibility to choose from different Multi FX types. To do this, use the dial [7], the navigation keys [8] or the [+] and [-] keys.

Each FX type has different parameters that are listed. You will find a tabular list in the following chapter.

Delay

Delay Time, Feedback, Pre-Low-Pass, High Damp

Records a segment of the played sound and repeats it several times with a certain delay (multi-echo).

Wah-Wah

Filter Type (Low Pass/Band Pass), Frequency, Resonance, Sensitivity, Direction (up/down)

The wah-wah effect is created by dynamically "brushing" through the frequency spectrum of the dry signal using a specific audio filter. Instead of classic pedal control like guitar effects, the G3 generates the movement of the filter along the frequency spectrum by the velocity of the stick heat



Distortion

Filter Type (Low Pass/Band Pass), Frequency, Resonance, Sensitivity, Direction (up/down)

Oversaturates the audio signal with gain and adds additional harmonic frequencies to the mix, resulting in a fuller, but in the case of distortion also "squarer" sound.

Chorus

Type (Sinus/Triangle), Modulation Rate, Modulation Depth

Creates a fuller sound by creating the illusion that several instruments are playing simultaneously. The effect is achieved by duplicating the dry signal and slightly delaying the detuned duplicate (fixed delay time of 20 ms). The frequency modulation of the duplicated signal is controlled by various LFO waveforms.

Flanger

Modulation Rate, Modulation Depth, Delay Time, Feedback

Doubles the dry signal and shifts it within a short delay time so that dry signal and duplicate are not perceived as two different sounds, creating an interesting effect.

Phaser

Modulation Rate, Modulation Depth, Resonance

An effect quite similar to the flanger, but with a somewhat "softer" sound. Like a wah-wah, the effect is created by the filter moving through the frequency spectrum like a brush. However, while the movement dynamics of a wahwah are determined by the intensity of the stick beat, the filter dynamics of the phaser are created by a sine wave

LFO.

Auto-Pan

Modulation Rate, Modulation Depth

Creates a panorama effect of the sound between the left and right speaker with a maximum phase shift of 180°. The volume of both channels (left and right) is animated by a sine LFO waveform.

Bit-Crusher

Bit Resolution, Down Sampling, Brightness

This effect increases the sharpness of your sound by reducing the resolution of the signal's waveform (along amplitude and period).

Exit the level

Press 🗗 [F3] to exit the layer or any menu key to exit the entire menu.

11.2.6 PARAMETER DETAIL – MULTI FX



Multi FX - Parameter

Multi Effects – Mutua	l Parameters	
Parameter	Value Range	Description
Level	%	Adjusts the balance between Dry and Wet = On/OFF signal sent to the mixer.
Send to Room Reverb	%	When Room Reverb is active, Multi Effects can sound self-sufficient and out of place. With this parameter, you can add room sound to a multi-effect for an integrated sound of the drum kit. A low value reduces the room component, while a high value emphasises the room component in the mix.
Note	These parameters are not part of the preset management but are stored as drum kit parameters using to direct method (save the drum kit).	

Wah-Wah			
Parameter	Value range	Unit	Description
Filter Type	Low Pass, Band Pass		Choose between a high cut filter (low pass) or band pass bell filter. Underlying constants: Transition steepness: 12 dB (Low Pass)
Frequency	100Hz - 8kHz	Hz	Depending on the selected filter type, this parameter sets the centre frequencies of low pass or band pass for the stroke velocity value of 0 (starting point).
Resonance	0-127		Corresponds to the "Q" factor in equalization. This parameter controls the width of the bell filter shape (band pass) and in case of selecting the low-pass option, Resonance controls the bell shape of the "overshooting" at the filter frequency. Set the width of the bell filter shape from 0 (no resonance, wide) in the lowest control position to 127 (max resonance, narrow) in the highest control position.
Sensitivity	0-100	%	Sensitivity defines the degree to which the dynamics of a stroke on a pad (Velocity) may control the movement of the specified filter along the possible frequency spectrum. The filter is defined by the parameters Filter Type, Start Frequency and Resonance. Technically, Sensitivity works as a multiplier (attenuator) for the effect intensity at a specific stroke velocity level. Example: With a sensitivity of 50%, a stroke on a pad with a maximum velocity of 127 causes the filter to move only halfway along the possible frequency range in the specified direction, while the same stroke velocity with sensitivity of 100% would exhaust the full frequency spectrum possible. The values range from 0 (off) to 127 (100%).
Direction	Up, Down		Set the direction of movement for the filter type in the frequency spectrum starting at Frequency.

Distortion / Saturation			
Parameter	Value range	Unit	Description
Туре	OD, DS		Choose between two methods of effect generation with different characteristics: OD (Overdrive) and DS (Distortion). While Overdrive models the characteristics known from tube amplifiers, Distortion provides the distortion characteristics typical of transistor amplifiers.
Drive	0-100	%	This parameter controls the intensity of the effect (scaling up frequency amplitudes). The values range from 0% (linear) to 100% (max. drive amount).
Frequency	250Hz - 8kHz	Hz	This parameter determines the frequency spectrum that is affected by the chosen effect type. If you prefer to saturate only the lower end of the frequency spectrum, set the desired filter frequency for the underlying low-pass filter with a transition steepness of 12 dB.
Post Gain	(-∞) – 0	dB	Adding this effect type will considerably amplify the output signal. With Post Gain, you can attenuate the mix again at the output channel. The values range from∞ (mute) to 0 (min attenuation).

Chorus			
Parameter	Value range	Unit	Description
LFO-Wave	Sine, Triangle		Determines the displacement waveform of the underlying low frequency oscillator (LFO). This is a control curve outside the audible spectrum of human ears (below 20 Hz, see also modulation rate). With the waveform, you can give the effect distinctive characteristics. Sine produces smooth characteristics, while triangle is known for sawtooth-like sound characteristics of the delayed duplicate.
Rate	0-10	Hz	Controls the speed of the LFO displacement and thus the speed of the fwavering sound. This parameter controls the length of the period of the LFO waveform.
Depth	0-127		Controls the intensity of the effect by adjusting the height of the LFO amplitude. The parameter values range from 0 (off) to 127 (intense).

Flanger			
Parameter	Value range	Unit	Description
Rate	0-10	Hz	Controls the length of the LFO waveform period and thus the frequency of the generated sweep.
Depth	0-127		Controls the intensity of the effect by adjusting the height of the LFO amplitude. The parameter values range from 0 (off) to 127 (intense). Always starting at high frequencies, specify how far the underlying LFO-controlled comp filter is allowed to advance into the low-frequency spectrum as it sweeps back and forth.
Delay-Time	0.125 -10	ms	Specify the delay time for the duplicated signal.
Feedback	0-127		Controls the number of signal copies feeding back into the effect unit to enhance the Comp Filter effect until it fades. Select low fader positions for less feedback signals and high fader positions for lots of feedback signals and a strong enhancement of the filtering.

Phaser			
Parameter	Value range	Unit	Description
Rate	0-10	Hz	Controls the length of the LFO waveform period and thus the frequency of the generated sweep. $ \\$
Depth	0-127		Controls the intensity of the effect by adjusting the height of the LFO amplitude. The parameter values range from 0 (off) to 127 (intense).
Resonance	0-127		Corresponds to the "Q" factor in equalization. This parameter controls the width of the bell filter shape. Set the width of the bell filter shape here. The value range extends from 0 (no resonance, wide) in the lowest controller position to 127 (max resonance, narrow) in the highest controller position.

Auto Pan			
Parameter	Value range	Unit	Description
Rate	1-20	Hz	Controls the length of the LFO waveform period and thus the frequency of the generated sweep.
Depth	0-127		Controls the intensity of the panning effect. Values range from 0 (equals to mono) to 127 (full alternation between the extreme values 63L and 63R).

Bit Crusher			
Parameter	Value range	Unit	Description
Bit Resolution	24, 1-16	bit	This parameter pixelates the audio signal and thus reduces the resolution of the signal (vertical direction, bit depth). Values: 24 (no reduction), 1 bit up to 16 bits
Down Sampling	1-16		Reduces the resolution of the wave period by lowering the sampling rate. (horizontal direction, quality). Values are defined as reduction factor and range from 1(no reduction) to 16 (reduction to 1/16 of the original sampling rate).
Brightness	0-100	%	Bit Resolution and Down Sampling are prone to increasing the amount of high frequencies in the output signal. Brightness adjusts the frequency of a low pass (high cut) filter with a transition steepness of 12 dB. Low control positions correspond to low filter frequencies and less treble, while high control positions lead to high filter frequencies and thus filter out less treble.

Delay			
Parameter	Value range	Unit	Description
Туре	Mono, Stereo		Mono produces a mono signal that is audible at both speakers simultaneously. In stereo mode, the delayed signals alternate between the left and right speakers. The mono signal is shifted to the left speaker and the second signal for the stereo effect is inserted between the mono signals on the right speaker. This doubles the feedback frequency (delay time is halved).
Delay Time	0-1365	ms	Controls the time in between repeats.
Feedback	0-127		Controls the number of repeats until the effect fades out. Select low fader positions for fewer repetitions and high fader positions for lots of repeats.
Pre-Low-Pass	2-8	kHz	Cuts the high frequencies of the dry signal above the set cut frequency. Only frequencies below the threshold frequency are passed on to generate the effect. The slope steepness of the filter is 12 dB. Pre-Low-Pass is only applied to the delayed sound. The dry signal itself is not affected.
High Damp	0-100	%	Filter that causes the high reverb frequencies to decay faster than the rest. The slider ranges from 0% (no attenuation) to 100% (maximum attenuation). Select higher values to create a delay that makes it seem as if the sound is moving away from the ear, while low damping values cause the repetitions to stagnate near the Dry signal.

11.3 USB LOAD/SAVE

In the "USB Load/Save" menu, you have the option of importing your own samples. In addition, backups and drum kit preset parameters can be imported and exported.



MENU → USB Load/Save

USB Load/Save

Insert a USB stick into the module. If no stick is recognised, [INSERT USB STICK] appears on the display. The following options are available:

===IMPORT=== (load into the module)

Wave/Sound

Import your own Wav-samples to integrate them into your drum kit.

Backup

Import a backup.

Kit

Import all settings of a user drum kit.

===EXPORT=== (save the contents of the module)

Backup

Create a backup of all parameters and settings of your module. Previously imported samples will not be saved!!

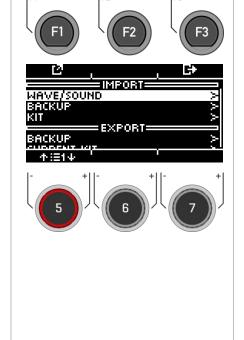
Current Kit

Save the kit settings (incl. effects) of the currently selected kit.

Select the corresponding menu item from the list with the dial [5] or the navigation keys [8] and open the menu by pressing the [7] or [ENTER] keys.

Exit the level

Press [F3] to exit the layer or any menu key to exit the entire menu.

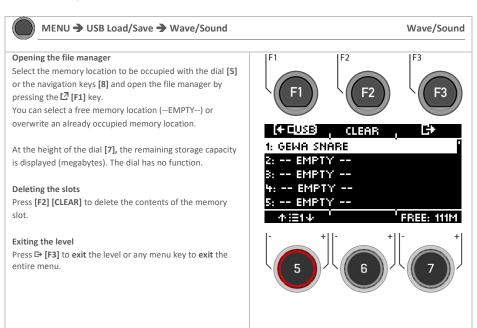




If you want to import files again directly after the export, pull the USB stick out of the module and plug it in again.

11.3.1 IMPORT - WAVE/SOUND

In this menu you can load up to 100 of your own samples from your USB stick into the module. The total memory is limited to 111MB.

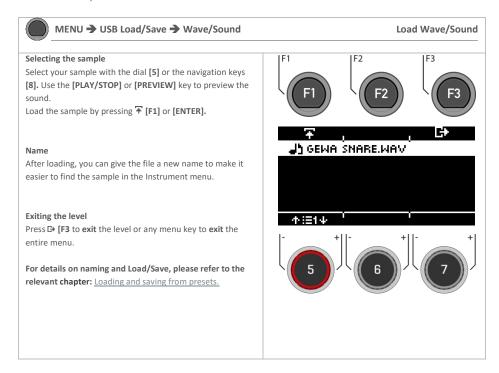




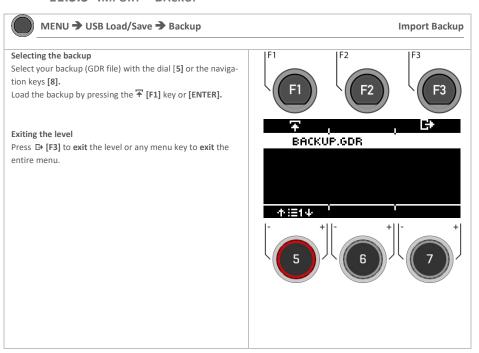
Note that in the INSTRUMENT menu, the module accesses the slots and not the file name. Therefore, it can happen that the sound of an already existing user drum kit is overwritten.

11.3.2 LOAD - WAVE/SOUND

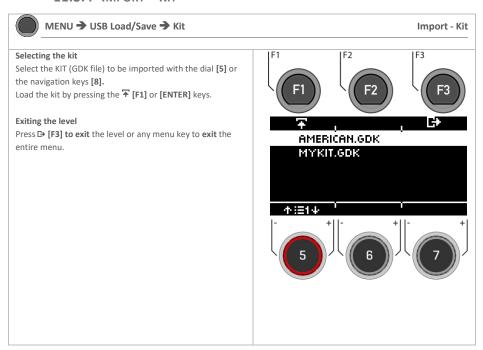
In this menu you can load up to 100 of your own samples from your USB stick into the module. The total memory is limited to 111MB.



11.3.3 IMPORT - BACKUP

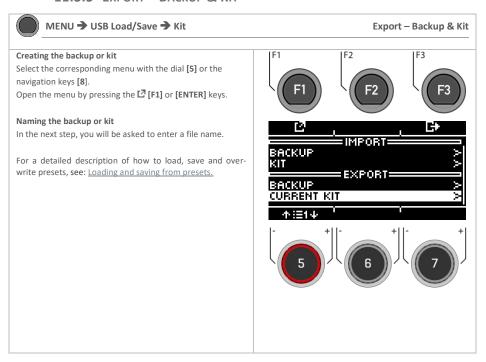


11.3.4 IMPORT - KIT



Now save and name the loaded kit directly in the [HOME] > [KIT] menu to a free user slot. For a detailed description of how to load, save and overwrite presets, see: Loading and saving from presets.

11.3.5 EXPORT - BACKUP & KIT





Only the currently loaded kit is saved. Please repeat the export procedure accordingly for other kits. Factory presets are automatically saved as a backup in the unit and do not need to be exported.

11.4 SETUP

In the setup menu, you can adjust basic settings for your device and establish a Bluetooth connection.



Setup

Press the [MENU] → [SETUP] key to open the menu.

Use the dial [5] or the navigation keys [8] to select a corresponding list entry.

Use the dial [7] [<VALUE>] or the navigation keys [8] to adjust the values.

or press [7] [F1] or [ENTER] to open the selected list entry.

Press [F3]to exit the level or any menu key to exit the entire menu.

The following functions are available:

Bluetooth

To connect to a Bluetooth-enabled device. Read the following chapter: Bluetooth



Language

Choose from available menu languages.

Knob Brightness

Adjust the brightness of the LED key illumination.

Auto-Off

If the module is not used, it switches off automatically after a longer period of inactivity (factory setting). You have the option of changing the time interval or switching off the function.

Select

Sound Preview

ON = You can listen to the drum kits directly in the kit-list without loading them.

OFF = You need to load the drum kit first to preview it.

Welcome Wizard

Start the settings help again.

Info

All information about your software version and serial number.

=== Data Cleanup ===

List of all options to reset the module completely or partially to the factory settings.

Data Cleanup Option

Wave Manager

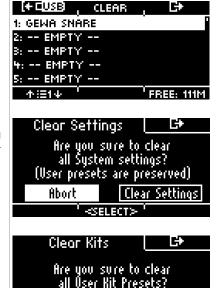
Delete and load wave files. See Chapter: "USB Load/Save"

Clear Settings *

Resetting the system settings and all settings of the selected kit, as well as the trigger settings. User presets are not deleted!

Clear all Kits *

Delete all created user drum kits.



Abort

Resetting the module to the factory settings. All user presets and settings are deleted.



[ABORT] [CLEAR (...)]

> Make your selection with the dial [6] [<Select>] or the navigation keys [8]. Press [ENTER] to confirm.

Before a factory reset, export your user drum kits and create a backup.

11.4.1 BLUETOOTH



MENU → SETUP → [F2]

Bluetooth

Press [F1] [PAIRING], to connect your G3 Module via Bluetooth with a device.

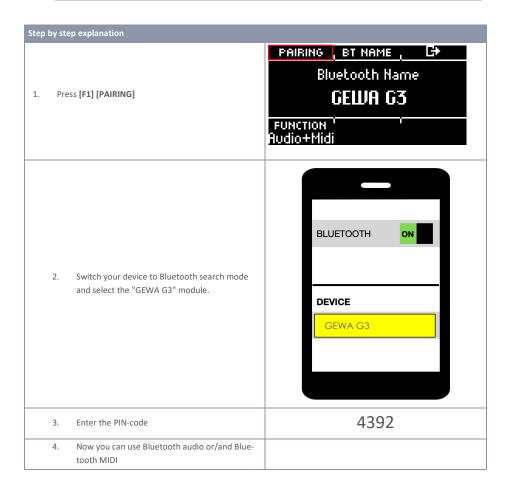
Press [F2] [BT NAME] to assign a custom name for the Bluetooth device.

Exit

Press [F3] to exit the level or any menu key to exit the entire menu.







After a successful connection, you have the possibility to choose between different Bluetooth-functions with the dial





Audio

MIDI

Funktion Off

Audio + MIDI

As soon as your device is connected to the G3 module, the connection is established automatically, even after a restart of the module. You can change the volume at the sending device and additionally via the "MIX-IN" channel in: [MENU] → [MIX].

Only audio

Only MIDI

Audio & MIDI-connerction



Press [F2] [BT NAME] to assign a new name.



- Use the navigation keys [8] or the dial [6]
 <CHAR> to find the desired character.
- Press [ENTER] to confirm the respective character
- To change the cursor position, use the dial [5]
- Use the dial [7] ABC abc to change the upper and lower case as well as special characters.
- You can delete individual characters by pressing (> [F2]].
- You can cancel at any time by pressing [F3].
- Save the Bluetooth name under [F1].



11.5 MASTER

You can access important features in the 'Master' menu. Here you will find all settings for the global equalizer and compressor settings, the MIDI functions and the routing functions.



Master

Press [MENU] → [MASTER] to open the menu.

The following functions are available:

Routing

Here you can assign the inputs to your outputs.

EQ / Compressor

Global equalizer and compressor settings.

MIDI

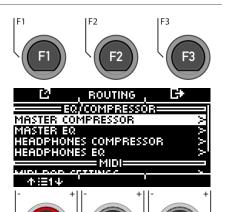
All MIDI setting options.

Use the dial [5] or the navigation keys [8] to select a corresponding list entry. By pressing [F1] or [ENTER], you can edit the selected list entry.

To access [ROUTING] [F2], press the corresponding key.

Exiting the level

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



11.5.1 ROUTING / INSTRUMENT



Routing

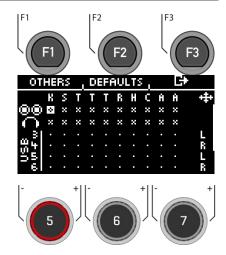
You can send any input signal to a variety of outputs built into the G3 using the **routing matrix**. The matrix also controls the **USB out**.

In this section, you will learn how to work with each matrix.

The routing function of the G3 is divided into 2 input categories: **Routing** and **Routing Others**. While the input channels displayed vary, the functionality is identical. Thus, the content of the following subchapters applies to each matrix.

DAW

6 USB-Outs are available. Please read chapter Routing DAW.



11.5.1.1 SELECTING AND ACTIVATING/DEACTIVATING THE OUTPUTS

Input channel/ Input

First select the input channel you want to activate/deactivate (horizontally) with the dial [5] or the navigation buttons [8] [<] [>].

Alternatively, you can also use the [+] and [-] keys.

Output channel/ Output

Use the dial [6] or the navigation keys [8] to select the output channel (vertical) [\(\cdot \)] [\(\cdot \)].

Activate / Deactivate

If you have selected In & Output in the matrix, then press [ENTER] or use the dial [7] to de-/activate the channel accordingly.

Mono/Stereo

You have the choice between stereo and mono routings. Use the dials [5] and [6] or the navigation keys [8] to move to the symbols.

M	Mono
L R	Stereo

Press [ENTER] or turn control [7] to switch between the mono and stereo function.

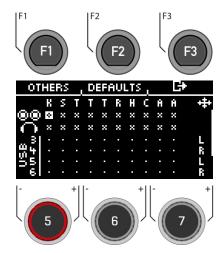
Exit

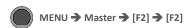
Press [F3] to exit the level or any menu key to exit the entire menu.

Automatic saving takes place.



Changes are saved automatically. This is a global function that affects all drum kit presets and is not saved in the presets.



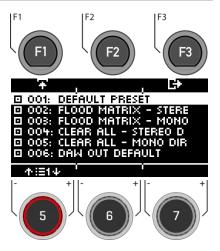


Defaults

Press [F2] [DEFAULTS] to access preset routings.

Use the dial [5] or the navigation keys [8] to select the preset from the list and confirm the selection with [ENTER] or \mp [F1].

Press \blacksquare [F3] to exit the level or any menu key to exit the entire menu.



11.5.2 ROUTING / OTHERS



Routing

In the level, you can assign the effects, the metronome (click) and the playback (mix-in, Bluetooth, songplayer) to the corresponding outputs.

The master output and the headphone output are available

Effects, songs and metronome are generally not sent via the direct outs.

00	Master-Out
\circ	Headphones

The operation is the same as described in the previous chapter.

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



11.5.3 ROUTING DAW

If you connect your G3 module to a computer via USB cable, then you will have the 6 USB-Outs and the sum of the Master-Outs are available. The table shows the channel assignment.

DAW Channel (USB)
1 (Master Out 1)
2 (Master Out 2)
3
4
5
6
7
8





Only the dry signals are sent via the USB channels. Only the Ambient effect is output as well. You can record the other effects via channels 1&2. Here, the entire sum of the direct outs is reproduced.

Tip: To record only the effects via channel 1&2, deactivate the input channels for the instruments at the Direct-Outs in the matrix.

11.5.4 MASTER & HEADPHONE EQUALIZER / COMPRESSOR



MENU → Master → EQ/COMPRESSOR → [F1]

MASTER EQ I Comp

As for the individual inputs, the G3 module offers you a fully parametric 3-band equalizer as well as a compressor for the master and headphone outputs.

MASTER COMPRESSOR & **HEADPHONES COMPRESSOR**

With the compressor, a smoother audio output can be achieved. Unwanted peaks can be lowered and quiet sounds can be raised.

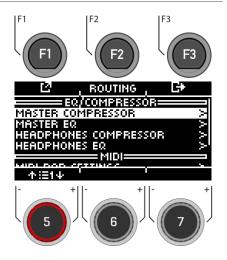
MASTER EQUALIZER (EQ) & **HEADPHONES EQUALIZER (EQ)**

The EQ on the G3 affects the volume of the three frequency ranges (LOW / MID / HIGH).

Select the desired menu item with the dial [5] or the navigation keys [8].

Open the respective menu with [3] [F1] or with [8] [ENTER].

Press [+ [F3] to exit the level or any menu key to exit the entire menu.





The operation of the individual parameters is identical to that of the Channel EQ and Channel Compressor settings. You will find more detailed information in the chapter: <u>Equalizer & Compressor</u>

11.6 MIDI

Under this menu item, you will find the MIDI (Musical Instrument Digital Interface) implementation of the G3 to configure the associated connections on the back of the unit. Furthermore, MIDI notes sent from each pad can be individually adjusted for MIDI outputs.

For users without MIDI experience: Note that MIDI is about control data and not about sound generation itself. All information sent via MIDI connections is for the purpose of controlling other devices by communicating in a common language so that other devices can interpret information received via the MIDI input. In this way, other devices can be accessed to use internal functions and sounds. Thus, sound generation ultimately takes place in a connected but remote device. The relationship of MIDI devices within a MIDI network can be ambivalent: all can act as server and client at the same time. You can best compare the function of MIDI in the digital music world with the role of sheet music in the traditional way of thinking. Sheet music contains all the important information about a piece in order to reproduce it recognisably, anywhere, with any group of musicians and any instrument (tempo, tone, instruments, arrangement, etc.). The only condition is that the group of musicians must be familiar with reading music. By just looking at it, no sheet of music makes music on its own; it takes instruments and musicians to create a sound and interpret the melodies and rhythms written down. And as in the digital world, the composer, conductor and musician can all take on roles simultaneously. In the analogy above, the author is the composer, notes are the medium and the musician's eye is the receiver. This chain of communication has its digital counterpart in electronic music: MIDI. Since digital devices do not have organs such as eyes and brains, nor do they have limbs to produce sound, a more appropriate way of communicating is needed that takes into account the way digital hardware works and exchanges the same quality of information as a sheet of music. An orchestra of connected MIDI talking devices will not produce a single note from their sound generators if you hand them a written piece of sheet music. Nor would they know when to change instruments, even if it is notated on that piece of paper. This is the job of the MIDI protocol.





You can access various MIDI functions in your G3 module.

MIDI PAD SETTINGS

Some external applications use mappings of MIDI control signals that differ from the standard MIDI file, so that communication with other MIDI devices can be faulty. In this tab, the user can adjust note values for **MIDI OUT** configurations.

MIDI IN control signals related to trigger detection of connected pads are fixed and cannot be modified.

MIDI CONTROL

Under "MIDI Control" you will find a selection of hardware components to control other instruments or to let these instruments be controlled by external MIDI devices.

MIDI GLOBAL SETTINGS

This menu item contains all settings for connecting the G3 to other MIDI devices to form an inline signal path for MIDI control data. Using the MIDI 2.0 protocol, it is then possible to remotely control certain functions of connected devices.

Select the desired menu item with the dial [5] or the navigation keys [8].

Open the respective menu with [8] [F1] or with [8] [ENTER].

Press E+ [F3] to exit the level or any menu key to exit the entire menu.



11.6.1 MIDI PAD SETTINGS

In this view, the user can adjust note values for MIDI OUT configurations.

An example of a deviation from the G3's internal MIDI note assignment is that some manufacturers use a specific note setup internally (e.g. the assignment starts at a different octave of the keyboard). In order to make these units compatible with each other, their external note configuration must be matched. Please also refer to the MIDI implementation for the units you wish to interact with.



MENU → Master → MIDI Pad Settings → [F1]

MIDI Pad Settings

Select input channel

Use the dial [5] [<INPUT>] or the navigation keys [8].

7one

Use the dial [6] [<ZONE>] or the navigation keys [8].

MIDI Note Assignment

Use the dial [7] [<VALUE>] to adjust the MIDI values.

List view

Press [F1] [<VIEW>] to view an entire overview of all assignments. You can return to the start overview by pressing [F1] again.

Basic settings

By pressing **[F2] [DEFAULTS]**, you have the possibility to restore basic settings.

Press 🕒 [F3] to exit the level or any menu key to exit the entire menu.



Channel-View

11.6.1.1 VIEW



MIDI Pad Settings

Press [F1] [VIEW] to switch between the "Channel-View" and the "List-View".

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



11.6.1.2 **DEFAULTS**



MENU → Master → MIDI Pad Settings → [F1] → [F2]

MIDI Pad Settings

Basic settings

Press $\[\mathbf{F2} \]$ $\[\mathbf{DEFAULTS} \]$ in the "CHANNEL-VIEW" to restore the default settings.

You can reset the MIDI Pad Settings for a ZONE, an entire PAD or ALL PADS.

Turn the dial [6] [<SELECT>] to select the corresponding function and press [ENTER].





To enter the "DEFAULT" menu from the list view, press [F1] - [F2] in the list view.

11.6.1.3 ASSIGNMENT



MENU → Master → MIDI Pad Settings → [F1] → [F2]

MIDI Pad Settings

Select MIDI note

Use the dial [5] or the navigation keys [8] to select the corresponding note.

Press [[F2] or [ENTER] to edit the note.

Exit menu

Press E+ [F3] to exit the level or any menu key to exit the entire menu.



Use the control dial [5] or the navigation keys [8] to select the corresponding note.

Press [ENTER] to confirm the selection.

Press [+ [F3] to exit the level or any menu key to exit the entire menu.



11.6.2 MIDI CONTROL



MENU → Master → MIDI Control → [F1]

MIDI Control

Under "MIDI Control" you will find a selection of hardware components to control other instruments or to have these instruments controlled by external MIDI devices. You have the option of assigning a limited number of continuous controllers from the range of 127 controllers defined in the MIDI standard.

Select input channel

Use the dial [5] [<INPUT>] or the navigation keys [8].

MIDI Control Assignment

Use the dial [7] [<VALUE>] or the navigation keys [8] to adjust the MIDI values.

Press 🗗 [F3] to exit the level or any menu key to exit the entire menu.



The following table lists all available and relevant Continuous Controllers with their controller numbers and description. Each line is updated together with the selection of a controller number. Active controller numbers are automatically stored in the G3's device database. The following table shows an expanded view of the underlying menus. Each controlling component connected to the corresponding input channels (HH Pedal, Snare, Ride, Toms/Aux) has access to the same set of available controllers. However, in the factory configuration they are set to different initial values. They go through the same list, just starting at a different starting point.

G3 Continuous Cor	ntrollers			
CC Components		Continuous Contro	oller (CC) Description	
HH Pedal CC	Start (Default)	• 4	Foot	
		• 11	Expression	
Snare CC	Start (Default)	• 16	General 1	
Ride CC	Start (Default)	• 17	General 2	
Toms/Aux CC	Start (Default)	• 18	General 3	
		• 19	General 4	
		• off	off	
		• 1	Modulation	
		• 2	Breath	
Kit Volume	Start (Default)	• on		
		• off		

11.6.3 MIDI GLOBAL SETTINGS



MENU → Master → MIDI Global Settings → [F1]

MIDI Global Settings

This menu item contains all settings for connecting the G3 to other MIDI devices for remote control.

Select menu item

Use the dial [5] or the navigation keys [8].

Changing the setting

Use the dial [7] [<VALUE>], the Navigation buttons [8] or the [+] [-] keys.

Press \mathbf{G} [F3] to exit the level or any menu key to exit the entire menu.



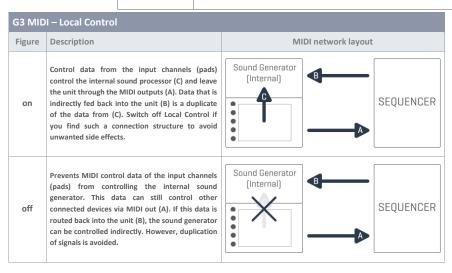
11.6.3.1 BASIC FUNCTION OF MIDI ROUTING

The following table shows you how best to route your MIDI signals.

G3 MIDI	Routing – Fields and men	ıs
DO DO N	MIDI Input	Local Control
	off to MIDI-Out to USB-MIDI to both	• on • off
USB	USB-MIDI	MIDI Channel
	off to MIDI-Out	• 10 • 11 • 12 • 13 • 14 • 15 • 16 • off • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9
*	Bluetooth MIDI	MIDI Channel
	off to MIDI-Out	• 10 • 11 • 12 • 13 • 14 • 15 • 16 • off • 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9
	ı	Factory settings are highlighted in bold .

11.6.3.2 EXPLANATION OF THE INDIVIDUAL SELECTION POINTS

EXTERNAL MIDI	Select how you w	ant to establish the MIDI connection.
	Cable	Cable
	BT LE	Bluetooth Low Energy
MIDI INPUT	Receive external I	MIDI data.
	Off	Off
	To Ext MIDI	Passing on incoming MIDI data to socket
	To USB MIDI	Passing on incoming MIDI data to USB-Out
	To Both	Passing on to both outputs.
USB MIDI	Using the USB MIDI function	
	Off	Off
	MIDI Out	MIDI-Output
LOCAL CONTROL	Local Control determines whether G3 MIDI Data is allowed to control sound processor. This function is turned on at the factory. Local Control recommended in conjunction with sequencers that feed MIDI information from the G3 back into the G3 to control the internal sound processor. In G3 sound processor would receive two identical sets of control data where is on. Disable Local Control (off) to reduce the amount of data receive unnecessary duplication of signals and unwanted side effects. See the for reference.	
	on	on
	off	off



MIDI CHANNEL	Select the MIDI channel on which you want to transmit and receive MIDI data. There are 16 channels available. The factory setting is channel 10, which is generally accepted as the standard MIDI channel for percussive instruments.				
	Off; 1-16 Channels available for selection.				
PROGRAM CHANGE TX (Transmit- Channel) PROGRAM CHANGE RX (Receive- Channel)	Switch on the Transmit channel if you want to change MIDI programmes of external devices by changing your drum kit. Turn on the Receive channel if you want your drum kits to be changed by external MIDI devices. Turn on both channels if you want to be able to change other device programs by changing the kit and at the same time accept that your kit will be changed, depending on a change of external programs. Note: The links set/modified in this menu item are automatically saved in the device database and loaded when restarting.				
	on on off off				

Channel co	Channel conditions and their effects							
Transmit	Receive	Application scenario						
off	off	Drum Kit Program Change is completely deactivated (factory setting)						
on	off	Only the G3 controls programmes on external MIDI devices by changing the kit.						
off	on	The G3 responds only to external MIDI programme changes. The drum kit linked to the external programme is loaded.						
on	on	The link is applied in both directions. Change external programmes by changing the drum kit. At the same time, the G3 accepts external programme changes by loading the drum kit specified in the respective shortcut.						



The links set/modified in this tab are automatically saved in the unit database and loaded at restart.

12 USB/SONG / PLAYER

In the "Player" section, you can load mp3 and wav files with a USB stick and play to the music or record yourself directly with the "RECORD" function.

In the following chapters, you can read about how the player and the record function are structured and work.

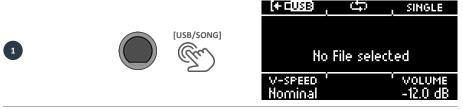
To use the player functions, press the "USB/SONG" key [13] .

12.1 SONGPLAYER



Insert a **USB stick** into the module.

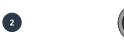
Press the [13] [USB/SONG] key.



If no USB stick is inserted, the following message appears in the display:



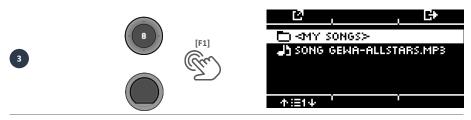
Press [F1] to open the file manager.







Use the navigation keys [8] or the dial [5] to select the folder or song from the list. To load, press [F1] or [ENTER] or cancel the operation with [F3].



If you have opened a folder, then proceed as described in point 3 to load a song. To return to a higher folder level, select the <UP> folder from the list.





SB/SONG Player

When you have loaded a song, various functions are available:

Start the songs

Press the [PLAY/STOP] or [ENTER] key to start the song.

Pause

Press the **[PLAY/STOP]** button briefly. The song pauses and the button flashes.

Stop

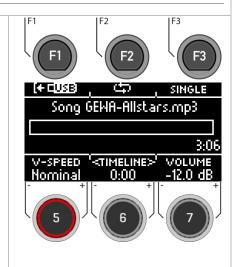
To stop the song, press and hold the [PLAY/STOP] key for one second.

Alternatively, you can press the

[ENTER] button once.

Next track / track back

Use the **Down** [w] & **Up** [A] keys to move to the next track or back one track.



Loop Function 🖙

You can selectively play a part of the song in a continuous loop (LOOP).

Use the [F2] key to set the starting and ending point.

1.	Start point	ു A-
2.	Ending point	්ක[A-B]
3.	Deactivate the function	\$

Repeat mode

With the [F3] key you can select the repeat mode.

1.	Single	Only the loaded song is played.
2.	Repeat	The song repeats itself.
3.	All	All songs in the folder are played one after the other.
4.	Rpt All	The entire folder is repeated.

V-Speed / Vari-Speed

You can adjust the tempo of the song with the dial [5].

+1 <	Tempo increased
Nominal	Original tempo
-1 >	Tempo reduced

Timeline

Use the dial [6] to change the playback position in the song.

Alternatively, you can also use the navigation keys left [<] & right [>] [8].

Volume

Use the dial [7] to select the volume of the song player.

12.2 RECORD



You have the option of recording directly onto your USB stick. All sounds that can be heard via the master outputs (drum kit, songplayer, etc...) are recorded.

Insert a USB stick into the module.

Press the [14] [RECORD] key. The recording starts and the [RECORD] key flashes.



To stop recording, press the [14] [RECORD] button again.



To assign a file name now, press [F1] or discard the file by pressing [F3] [DISCARD]. For how naming works, see: Loading and saving from presets

You will now find the saved file on your USB stick.



13 UPDATE

GEWA is constantly working on updates to give you the most enjoyment out of your instrument in the future.

Under [MENU] → SETUP → INFO you will find the version and serial number of your G3 module.

Updated files can be found at: www.gewadrums.com/service

Follow the installation steps from the website and load the update into the root directory of your USB-stick.

 Insert the USB stick and switch on the device. Keep the [F1] and [F3] keys pressed during the booting-up process.



- Follow the instructions and press [ENTER].
- 8
- 2. After the successful update, remove the USB-stick and reboot the module.

14 USFFUL INFORMATION

14.1 WARRANTY

Warranty for a period of 2 years from the date of purchase on hardware and workmanship is granted by the dealership where the digital drum set or console was originally bought. In the event of a proven defect, the buyer has in the first instance only the right to receive supplementary performance.

Supplementary performance includes either rectification or supply of a replacement product. Equipment or exchanged parts become to be the property of the processing dealership. In the event supplementary performance should fail, the buyer may negotiate a reduction of the purchase price or withdraw from the contract and, if the dealership is responsible for the defect, demand compensation for damages and/or expenses deriving from the defect(s). The buyer must inform the dealer immediately on any defects identified. The only way to prove a warranty claim is that the buyer can present a valid proof of purchase, e.g. invoice.

Damage arising from incorrect handling, operation or storage as well as by force majeure or other external influences, does not comply with the warranty terms, nor in addition does the use of consumer products such as e.g. rechargeable batteries, strings, skins or seals. If you suspect that you have a claim that will be covered by the warranty terms regarding your GEWA digital Drum Console, please contact your dealer during regular business hours.

14.2 TROUBLESHOOTING AND POSSIBLE SOLUTIONS

Problem	Pos	sible Solutions
The console does not boot when pressing the power button.	1	Make sure the power cable is connected correctly to electrical outlet and apparatus. Live installations will cause power button to light up. (standby → red, on → white)
The user interface freezes.	1	Perform a hard reset by holding down the power button until the device shuts down. Try to restart by tapping the power button again. (If this happens in a dry environment and in absence of any climatic extremes, please contact customer services)
I can only hear one pad component (e.g. Head OR Rim).	1	Make sure that the stereo cables connecting pad and console are plugged in completely. Regarding GEWA cymbals and modules, the stereo cable needs to be connected to the socket facing the cymbal piezo.
I can't hear any sound (neither the Drum Kit nor any other sounds such as playing songs or (metronome).	1	Check whether your headphones or speakers are connected to the console correctly.
	2	Make sure your output volume dials are not muted (Headphone, Master, Mix Input).
	3	Check settings in the routing matrix and load one of the "Defaults" Menu → Master → [F2] Routing
I can't hear any sound of connected pads. Songplayer and Metronome are however both audible.	1	Check settings in the routing matrix and load one of the "Defaults". Menu → Master → [F2] Routing
	2	If you have worked with MIDI lately, a turned off Local Control might prevent the control data generated by the connected hardware from accessing the internal sound engine. Check Menu → Master → MIDI Global Settings → Local Control
I can't hear any Metronome sound, but I can hear the drum kit and playing songs.	1	The Metronome is likely to be muted. Check Home → [F3] Click → [7] Click-Vol.
	2	The Metronome is not routed to the output you are listening to. Check "Click" in Menu → Master → [F2] Routing → [F1] Others → Click
Component icons in Kit editor don't match the connected pad type. (Drum or cymbal)	1	Assign a matching trigger bank to the input channel in question and save a new trigger setup (Icons shown in "Instrument" are driven by the trigger bank assigned to an input channel). Triggers Set → [F2] Setup → [F2] Bank

14.3 MIDI LIST / NOTES & NRPN / GEWA G3 & G5 & G9

14.3.1 MIDI IMPLEMENTATION

For MIDI messages received on MIDI channel 10.

MIDI Message	HEX Code	Description
NOTE ON	99H kk vv	Note ON #kk(1-127), velocity vv(1-127). vv=0 means NOTE OFF
NOTE OFF	89H kk vv	Note OFF #kk(1-127), vv is don't care.
KEY AFTERTOUCH	A9H kk vv	Cymbal Choke
CTRL 04	В9Н 04Н сс	Hi-Hat Control
CTRL 06	В9Н 06Н сс	NRPN Data entry, see page 3 and following
CTRL 07	В9Н 07Н сс	Drum Kit Volume (default=100)
CTRL 98	B9H 62H vv	NRPN low, see page 3 and following
CTRL 99	B9H 63H vv	NRPN high, see page 3 and following
CTRL 120	B9H 78H 00H	All sound off (abrupt stop of sound)
CTRL 123	B9H 7BH 00H	All notes off

14.3.2 DRUM KIT TRIGGER LIST

Following is the List of all Pad/Triggers with its MIDI notes, triggered on MIDI channel 10.

Pad	Chan# (internal)		Name	Note# (hex)	Note# (decimal)	
Kick		1	Head	0x24		36
Snare		2	Head	0x26		38
		2	Rim	0x28		40
		2	Cross-stick	0x25		37
Tom1		3	Head	0x30		48
		3	Rim	0x32		50
Tom2		4	Head	0x2D		45
		4	Rim	0x2F		47
Tom3		5	Head	0x2B		43
		5	Rim	0x3A		58

Tom4	6	Head	0x29	41
	6	Rim	0x27	39
Ride	7	Bow	0x33	51
	7	Bell	0x35	53
	7	Edge	0x3B	59
Crash	8	Bow	0x31	49
	8	Bell	0x11	17
	8	Edge	0x37	55
Crash2	9	Bow	0x39	57
	9	Bell	0x12	18
	9	Edge	0x34	52
Hi-Hat	11	Bow	0x2E	46
	11	Edge	0x1A	26
	11	Bow	0x17	23
	11	Edge	0x18	24
	11	Bow	0x14	20
	11	Edge	0x19	25
	11	Bow (Closed)*	0x2A	42
	11	Edge	0x16	22
	11	Pedal Chick	0x2C	44
	11	Pedal Splash	0x15	21
	11	Bell	0x13	19
AUX1	12	Head	0x58	88
	12	Rim	0x59	89
	12	Bell	0x16	22
AUX2	13	Head	0x5A	90
	13	Rim	0x5B	91
	13	Bell	0x17	23
AUX3	14	Head	0x5C	92
	14	Rim	0x5D	93

	14	Bell	0x18	24
AUX4	15	Head	0x5E	94
	15	Rim	0x5F	95
	15	Bell	0x19	25



Chan# is the internally used channel for drum sound play. Externally (on MIDI_IN) all these drums sounds are triggered through MIDI channel 10.

Note# 1 till 16 are used to trigger the metronome click sounds (0x01 = "one", 0x02 = "two" etc.).

Trigger table sorted by Note#

1-16	Reserved for Metronome
17 - FO	Drum Kit Crash Bell
18 - F#0	Drum Kit Crash2 Bell
19 - G0	Drum Kit HH Bell
20 - G#0	Reserved
21 - A0	Drum Kit HH Pedal Splash
22 - A#0	AUX1 Bell
23 - BO	AUX2 Bell
24 - C1	AUX3 Bell
25 - C#0	AUX4 Bell
26 - D1	Drum Kit HH Edge
27 - D#1	GM set High Q
27 - D#1	GM set High Q (see GM sound list)
	_
	(see GM sound list)
 35 - B1	(see GM sound list) GM set Standard Kick2
 35 - B1 36 - C2	(see GM sound list) GM set Standard Kick2 Drum Kit Kick
 35 - B1 36 - C2 37 - C#2	(see GM sound list) GM set Standard Kick2 Drum Kit Kick Drum Kit X-Stick
 35 - B1 36 - C2 37 - C#2 38 - D2	(see GM sound list) GM set Standard Kick2 Drum Kit Kick Drum Kit X-Stick Drum Kit Snare
 35 - B1 36 - C2 37 - C#2 38 - D2 39 - D#2	(see GM sound list) GM set Standard Kick2 Drum Kit Kick Drum Kit X-Stick Drum Kit Snare Drum Kit Tom 4Rim
35 - B1 36 - C2 37 - C#2 38 - D2 39 - D#2 40 - E2	(see GM sound list) GM set Standard Kick2 Drum Kit Kick Drum Kit X-Stick Drum Kit Snare Drum Kit Tom 4Rim Drum Kit Snare Rim

44 - G#2	Drum Kit HH Pedal Chick
45 - A2	Drum Kit Tom 2
46 - A#2	Drum Kit HH Bow (Open)
47 - B2	Drum Kit Tom 2 Rim
48 - C3	Drum Kit Tom 1
49 - C#3	Drum Kit Crash Cymbal
50 - D3	Drum Kit Tom 1 Rim
51 - D#3	Drum Kit Ride Cymbal
52 - E3	Drum Kit Crash 2 Edge
53 - F3	Drum Kit Ride Bell
54 - F#3	GM set Tambourine
55 - G3	Drum Kit Crash Edge
56 - G#3	GM set Cowbell
57 - A3	Drum Kit Crash Cymbal 2
58 - A#3	Drum Kit Tom 3 Rim
59 - B3	Drum Kit Ride Edge
60 - C4	GM set Hi Bongo
	(see GM sound list)
87 - D#6	GM set Open Surdo
88 - E6	AUX1 Head
89 -F6	AUX1 Rim
90 - F#6	AUX2 Head
91 -G6	AUX2 Rim
92 - G#6	AUX3 Head
93 -A6	AUX3 Rim
94 - A#6	AUX4 Head
95 – B6	AUX4 Rim
96 – 127	Reserved for Hi-Hat

14.3.3 DRUM EDIT NRPN CONTROLS

NRPN sending method: CTRL#99=high byte, CTRL#98=low byte, (CTRL#38=value low byte), CTRL#6=value high byte

Following is the list of available Edit Controls for the Pads/Triggers mentioned in the table above:

MIDI Message	HEX Code	Description		
Pad Instrument Settings ("rr" is the MIDI note number of the according Pad/Trigger) *				
NRPN 0ArrH	B9H 63H 0AH 62H rr 06H vv	MIDI Note number (for external MIDI), vv=0127 (0=OFF)		
		Attack, range 0127, 0 = default		
NRPN 10rrH	B9H 63H 10H 62H rr 06H vv	0=0ms, 1=0.38ms, 16=6ms, 32=12ms, 48=25ms, 64=50ms, 80=100ms 96=200ms, 112=400ms, 127=1000ms		
NRPN 11rrH	B9H 63H 11H 62H rr 06H vv	Release, range 0127, 64 = default		
NRPN 12rrH	B9H 63H 12H 62H rr 06H vv	Second Sound Group vv=0 (Kick), 1 (Snare) **		
NRPN 13rrH	B9H 63H 13H 62H rr 06H vv	Second Sound ON/OFF, 0 = OFF(default), else ON		
NRPN 14rrH	B9H 63H 14H 62H rr 06H vv	Second Sound Instr. select, range 0maxNB (maxNB depends on Group) **		
NRPN 15rrH	B9H 63H 15H 62H rr 06H vv	Second Sound Volume, range 0127, 64 = -12dB (default)		
NRPN 08rrH	B9H 63H 08H 62H rr 06H vv	Second Sound Coarse Tuning vv=406488 = -240+24 semitones		
NRPN 09rrH	B9H 63H 09H 62H rr 06H vv	Second Sound Fine Tuning vv=0 (no modify)127 (+1 semitone)		
NRPN OBrrH	B9H 63H 0BH 62H rr 06H vv	Second Sound Attack, range 0127, 0 = default (see details above)		
NRPN 0CrrH	B9H 63H 0CH 62H rr 06H vv	Second Sound Release, range 0127, 64 = default		
NRPN 16rrH	B9H 63H 16H 62H rr 06H vv	Sound Group vv=0 (Kick), 1 (Snare) **		
NRPN 17rrH	B9H 63H 17H 62H rr 06H vv	Sound Instr vv= 0maxNB (maxNB depends on Group) **		
NRPN 18rrH	B9H 63H 18H 62H rr 06H vv	Coarse Tuning vv=406488 = -240+24 semitones		
NRPN 19rrH	B9H 63H 19H 62H rr 06H vv	Fine Tuning vv=0 (no modify)127 (+1 semitone)		
NRPN 1ArrH	B9H 63H 1AH 62H rr 06H vv	Sound Volume, vv=0127		
Pad Mixer Settings	***			
NRPN 07rrH	B9H 63H 07H 62H rr 06H vv	Pad Volume, vv=0127		
NRPN 1BrrH	B9H 63H 1BH 62H rr 06H vv	Ambience level, vv=0127		
NRPN 1CrrH	B9H 63H 1CH 62H rr 06H vv	Panning, vv=0127, 64 = center		
NRPN 1DrrH	B9H 63H 1DH 62H rr 06H vv	Room Reverb send level, vv=0127		
NRPN 1ErrH	B9H 63H 1EH 62H rr 06H vv	Instrument Reverb send level, vv=0127		
NRPN 1FrrH	B9H 63H 1FH 62H rr 06H vv	Multi-FX send level, vv=0127		

Routing Drums bus switches, 14bit (including NRPN LSB value):

MSB (mb) bits 6/5 : Master (Main) Out L/R

MSB (mb) bits 4/3 : Monitor Out L/R

MSB (mb) bits 2/1: Headphone Out L/R

NRPN 0FrrH B9H 63H 0FH 62H rr 26H lb 06H mb MSB (mb) bit 0 : Direct Out 7

LSB (lb) bit 6: Direct Out 6

...

LSB (lb) bit 0 : Direct Out 0

Bits 6..1 =0 : Drum channel direct signal muted (-> Direct OFF)

Pad EQ Settings ***

NRPN 20rrH	B9H 63H 20H 62H rr 06H vv	Equalizer ON/OFF, 0=OFF, else ON
NRPN 21rrH	B9H 63H 21H 62H rr 06H vv	Low Band Gain, 0=-15dB64=0dB127=+15dB
NRPN 22rrH	B9H 63H 22H 62H rr 06H vv	Mid Band Gain, 0=-15dB64=0dB127=+15dB
NRPN 23rrH	B9H 63H 23H 62H rr 06H vv	High Band Gain, 0=-15dB64=0dB127=+15dB
NRPN 24rrH	B9H 63H 24H 62H rr 06H vv	Low Band Freq, 0=20Hz127=16KHz (14bit precision, 1Hz step)
NRPN 25rrH	B9H 63H 25H 62H rr 06H vv	Mid Band Freq, 0=20Hz127=16KHz (14bit precision,1Hz step)
NRPN 26rrH	B9H 63H 26H 62H rr 06H vv	High Band Freq, 0=20Hz127=16KHz (14bit precision,1Hz step)
NRPN 27rrH	B9H 63H 27H 62H rr 06H vv	Mid Band Q, 0=0.1127=8

Pad Compressor Settings ***

NRPN 28rrH	B9H 63H 28H 62H rr 06H vv	Compressor ON/OFF, 0=OFF, else ON
NRPN 29rrH	B9H 63H 29H 62H rr 06H vv	Attack time: 0=fast attack (0.1ms), 60 =1ms, 100 =10ms, till 127=slow attack (100ms), exp. Curve
NRPN 2ArrH	B9H 63H 2AH 62H rr 06H vv	Release time: 0=fast release (10ms), 60=100ms, 100=1s, till 127=slow release ($^{\sim}$ 5s), exp. Curve
NRPN 2BrrH	B9H 63H 2BH 62H rr 06H vv	Threshold: 127=0dB, 64=-6dB, 32=-12dB, 16=-18dB, 8=-24dB, 4=-30dB, 2=-36dB 0=-Inf
NRPN 2CrrH	B9H 63H 2CH 62H rr 06H vv	Ratio: 127=1/128, 126=2/128 (1/64), 125=3/128, 64=64/128 (1/2), 0=1/1
NRPN 2DrrH	B9H 63H 2DH 62H rr 06H vv	Boost: 0=1x 127=8x
NRPN 2ErrH	B9H 63H 2EH 62H rr 06H vv	Knee : 0=hard, else soft
NRPN 2FrrH	B9H 63H 2FH 62H rr 06H 00	Request Input / Gain Reduction / Output levels (see below for Response message)



^{*} Edit controls of all Hi-Hat trigger notes work on same parameter set and need only to be sent once (rr=46).

Individual Hi-Hat Volumes can be sent with: rr=42 (Bow), rr=26 (Edge), rr=19 (Bell), rr=44 (Pedal Chick), rr=21 (Pedal Splash)
** "Sound Select" is managed by sending "Sound Group" NRPN and "Sound Instr." NRPN. Available Sound Groups are: 0-Kick,
1=Snare, 2=Tom, 3=Crash, 4=Ride, 5=Hi-Hat, 6=Cymbal SFX, 7=Percussion1, 8=Percussion2, 9=Sound-FX, 10...109=Imported
Sounds, 110...=Waves

14.3.4 EFFECTS NRPN CONTROLS

NRPN # (High Low)	Description	Power- up default
Ambience		
0100h	Ambience Level 0 (mute) to 7Fh (max)	0
0101h	Pre-Delay 0 to 127 (TBD)	0
0102h	Ambience ON/OFF 0 = OFF, else ON	0 (OFF)
Instrument Reverb		
0200h	Reverb Level 0 (mute) to 127 (max)	64
0201h	Pre-Delay Time 0 = 0ms, till 127 = 250ms	0
0202h	Reverberation Time 0 (shortest) till 7Fh (longest)	64
0203h	Pre-High-Pass Filter Frequency 0=OFF64=~500Hz127=~1KHz	0
0204h	High-Shelf Filter (Tone) Gain 0=-12dB, 64=0dB, till 7Fh = +6dB	64
0205h	High Damp 0= no damping, till 127=max damping	0
0206h	Gated Reverb Threshold Level 0=OFF, 1 = -114dB till 127 = -24dB	0
0207h	Reverb Type 02=Room, 35=Hall, 68=Plate1, 911=Plate2	5 (Hall Large)
0208h	Send to Room Reverb 0 (mute) to 127 (max)	127
0209h	Instrument Reverb ON/OFF 0 = OFF, else ON	ON
020Fh	Routing bus switches (see description of NRPN 370FH)	
Room Reverb		
0300h	Reverb Level 0 (mute) to 127 (max)	64
0301h	Pre-Delay Time 0 = 0ms, till 127 = 250ms	0
0302h	Reverberation Time 0 (shortest) till 7Fh (longest)	64
0303h	Pre-High-Pass Filter Frequency 0=OFF64=~500Hz127=~1KHz	0
0304h	High-Shelf Filter (Tone) Gain 0=-12dB, 64=0dB, till 127 = +6dB	64

^{***} Pad Mixer, EQ and Compressor settings are done per pad trigger group (e.g. head + rim, or bow + edge + bell). NRPN needs only to sent once using the "head" resp. "bow" trigger note.

0305h High Damp 0= no damping, till 127=max damping 0

0309h Reverb ON/OFF 0 = OFF, else ON ON

030Fh Routing bus switches (see description of NRPN 370FH)

Multi Effects

0400h Multi Effects Level 0 (mute) to 127 (max) 0

Multi Effects Type: 0=Delay, 1=Wah-Wah, 2=Distortion, 3=Chorus, 4=Flanger, 5=Phaser,

0401h

6=Auto-Pan, 7=BitCrusher

0402h Multi Effects ON/OFF 0 = OFF, else ON OFF

0403h Send to Room Reverb 0

040Fh Routing bus switches (see description of NRPN 370FH)

Multi Effects: Delay Controls

0404h Type, 0=mono, 1=stereo

0405h Delay Time, 0 to 127 = 0 to 1365ms (14bit precision, 0.083ms steps)

0406h Feedback, 0 to 127

0407h Pre Low Pass, 0 to 127 = 2KHz to 8KHz

0408h High-Damp, 0 to 127

Multi Effects: Wah-Wah Controls

0404h Filter-Type: 0 = Low Pass, 1 = Band Pass

0405h Wah-Wah Filter Frequency / Pedal Position: 0 = closed , till 127 = open (8kHz)

0406h Wah-Wah Filter Resonance: 0 = no resonance, till 127 = max resonance

0407h Auto-Wah Sensitivity: 0=OFF, till 127=100%

0408h Auto-Wah Direction: 0=Up, 1=Down

Multi Effects: Distortion Controls

0404h Type: 0=Overdrive (OD), 1=Distortion (DS)

0405h Drive: 0 (linear) till 127 (max drive amount)

0406h Low Pass Filter Frequency: 0 = closed, till 127 = open (8kHz)

0408h Post Gain: 0 (muted), till 127

Multi Effects: Chorus

0404h Type (Waveform): 0 = Triangle, else Sine

0405h Modulation Rate: 0 = 0Hz till 127 = 10Hz, formula: Rate(Hz) = 10*(value/127)^2

0406h Modulation Depth, 0 to 127

Multi Effects: Flanger

0404h Modulation Rate: 0 = 0Hz till 127 = 10Hz (formula see above)

0405h Modulation Depth, 0 to 127

0406h Delay Time: 0 = 0.125ms, till 127 = 10ms

Feedback, 0 to 127 0407h

Multi Effects: Phaser

0404h Modulation Rate: 0 = 0Hz till 127 = 10Hz (formula see above)

0405h Modulation Depth, 0 to 127

0406h Resonance, 0 to 127

Multi Effects: Auto-Pan

0404h Modulation Rate: 0 = 1Hz till 127 = 20Hz, formula: Rate(Hz) = 1 + 19*(value/127)^2

0405h Modulation Depth, 0 to 127

Multi Effects: Bit-Crusher

0404h Bit Resolution: 0 = no reduction, 1...16

0405h Down-Sampling Factor: 1..16

0406h Brightness: 0..127

14.3.5 MASTER/MONITOR/HP EQ/COMP NRPN CONTROLS

Master Output Parametric 4-Bands Equalizer

3809h

380Ah

380Bh

3855h Equalizer ON/OFF 0=OFF, else ON OFF 3808h Low Band Gain 0=-15dB...40h=0dB...7Fh=+15dB 40h

Low Mid Band Gain 0=-15dB...40h=0dB...7Fh=+15dB

High Band Gain 0=-15dB...40h=0dB...7Fh=+15dB

High Mid Band Gain 0=-15dB...40h=0dB...7Fh=+15dB

380Ch Low Band Freq. (note 1) 0=20Hz...7Fh=16kHz

380Dh Low Mid Band Freg. (note 1) 0=20Hz...7Fh=16KHz

380Eh High Mid Band Freq. (note 1) 0=20Hz...7Fh=16KHz 40h

40h

40h

380Fh	High Band Freq. (note 1) 0=20Hz7Fh=16kHz	
3810h	Low Mid Band Q-Factor 0:Q=0.17Fh:Q=8.0	
3811h	High Mid Band Q-Factor 0:Q=0.17Fh:Q=8.0	
Master Output Compressor/Limiter		
3818h	Compressor ON/OFF: =0 OFF, else ON	OFF
3819h	eq:Attack time: 0=fast attack (0.1ms), 60=1ms, 100=10ms, till 127=slow attack (100ms), exp. Curve	40h
381Ah	Release time: 0=fast release (10ms), 60=100ms, 100=1s, till 127=slow release (~5s), exp. Curve	40h
381Bh	Threshold: 127=0dB, 64=-6dB, 32=-12dB, 16=-18dB, 8=-24dB, 4=-30dB, 2=-36dB 0=-Inf	7Fh
381Ch	Ratio: 127=1/128, 126=2/128 (1/64), 125=3/128, 64=64/128 (1/2), 0=1/1	0
381Dh	Boost: 0=1x 127=8x	0
381Eh	Knee: 0=hard, else soft	0
381Fh	Request Input / Gain Reduction / Output levels (see below for Response message)	-
Monitor Output Parametric 4-Bands Equalizer		
3955h	Equalizer ON/OFF 0=OFF, else ON	OFF
3908h	Low Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
3909h	Low Mid Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
390Ah	High Mid Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
390Bh	High Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
390Ch	Low Band Freq. (note 1) 0=20Hz7Fh=16kHz	
390Dh	Low Mid Band Freq. (note 1) 0=20Hz7Fh=16KHz	
390Eh	High Mid Band Freq. (note 1) 0=20Hz7Fh=16KHz	
390Fh	High Band Freq. (note 1) 0=20Hz7Fh=16kHz	
3910h	Low Mid Band Q-Factor 0:Q=0.17Fh:Q=8.0	
3911h	High Mid Band Q-Factor 0:Q=0.17Fh:Q=8.0	
Monitor Output Compressor/Limiter		
3918h	Compressor ON/OFF: =0 OFF, else ON	OFF
3919h	Attack time: 0=fast attack (0.1ms), 60=1ms,100=10ms, till 127=slow attack (100ms), exp. Curve	40h
391Ah	Release time: 0=fast release (10ms), 60=100ms, 100=1s, till 127=slow release (~5s), exp. Curve	40h
391Bh	Threshold: 127=0dB, 64=-6dB, 32=-12dB, 16=-18dB, 8=-24dB, 4=-30dB, 2=-36dB 0=-Inf	7Fh
391Ch	Ratio: 127=1/128, 126=2/128 (1/64), 125=3/128, 64=64/128 (1/2), 0=1/1	0

391Dh	Boost: 0=1x 127=8x	0
391Eh	Knee: 0=hard, else soft	0
391Fh	Request Input / Gain Reduction / Output levels (see below for Response message)	-
Headphone Output Parametric 4-Bands Equalizer		
3A55h	Equalizer ON/OFF 0=OFF, else ON	OFF
3A08h	Low Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
3A09h	Low Mid Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
3A0Ah	High Mid Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
3A0Bh	High Band Gain 0=-15dB40h=0dB7Fh=+15dB	40h
3A0Ch	Low Band Freq. (note 1) 0=20Hz7Fh=16kHz	
3A0Dh	Low Mid Band Freq. (note 1) 0=20Hz7Fh=16KHz	
3A0Eh	High Mid Band Freq. (note 1) 0=20Hz7Fh=16KHz	
3A0Fh	High Band Freq. (note 1) 0=20Hz7Fh=16kHz	
3A10h	Low Mid Band Q-Factor 0:Q=0.17Fh:Q=8.0	
3A11h	High Mid Band Q-Factor 0:Q=0.17Fh:Q=8.0	
Headphone Output Compressor/Limiter		
3A18h	Compressor ON/OFF: =0 OFF, else ON	OFF
3A19h	Attack time: 0 =fast attack (0.1 ms), 60 = 1 ms, 100 = 10 ms, till 127 =slow attack (100 ms), exp. Curve	40h
3A1Ah	Release time: 0=fast release (10ms), 60=100ms, 100=1s, till 127=slow release (~5s), exp. Curve	40h
3A1Bh	Threshold: 127=0dB, 64=-6dB, 32=-12dB, 16=-18dB, 8=-24dB, 4=-30dB, 2=-36dB 0=-Inf	7Fh
3A1Ch	Ratio: 127=1/128, 126=2/128 (1/64), 125=3/128, 64=64/128 (1/2), 0=1/1	0
3A1Dh	Boost: 0=1x 127=8x	0
3A1Eh	Knee: 0=hard, else soft	0
3A1Fh	Request Input / Gain Reduction / Output levels (see below for Response message)	-

Note 1: 14bit precision when using NRPN MSB+LSB value, 1 Hz step

14.3.6 COMPRESSOR INPUT / GAIN REDUCTION / OUTPUT LEVELS RE-SPONSE PACKET DESCRIPTION

D	esc	rip	tic	on

0x4352 Packet Type = "CR" (Compressor Response)

CMP ID Compressor channel ID (see below)

INP L Input peak level left

INP R Input peak level right

GR L Compressor reduction value left

GR R Compressor reduction value right

OUT L Output peak level left

OUT R Output peak level right

CMP ID is the ID of Compressor channel (0 = Master, 1 = Monitor, 2 = Headphone, "rr" for drum channels)

INP, OUT are values of peak level in dB range from 0 till 70 as follows:

70 = 0dB, 69 = -1dB, 68 = -2dB (1dB steps) ... 64= -6dB ... 0 = -infinite

GR is a value of reduction level in dB range from 0 till 70 as follows:

70 = -70dB, 69 = -69dB, 68 = -68dB (-1dB steps) ... 20= - 20dB ... 0 = no compression

14.3.7 TRIGGER SETTINGS EDIT NRPN CONTROLS

"rr" is the MIDI note number of the according Pad/Trigger

NRPN	Description
40rrH	Trigger Bank Preset # 0maxNB (max number of presets depends on factory Trigger Bank)
41rrH	Head/Rim resp. Bow/Edge/Bell*** Gain 08
42rrH	Head/Rim resp. Bow/Edge/Bell Threshold 1127
43rrH	Head/Rim resp. Bow/Edge X-Talk 07

44rrH Head/Rim resp. Bow/Edge/Bell*** High Level 8..127

45rrH Hi-Hat Pedal Low Position 0..127

46rrH Hi-Hat Pedal High Position 0..127

47rrH Head/Rim resp. Bow/Edge/Bell*** Scan Time 10..100

48rrH Head/Rim resp. Bow/Edge/Bell*** Retrigger Mask 1..127

49rrH Trigger Type Head/Bow :1 = Single, 2 = Dual, 3 = "3-way", Rim/Edge: 0 = Piezo, 1 = Switch

4ArrH Positional Sensing* 0 = OFF, else ON

4CrrH Curve preset # ** 0..15

4DrrH Hi-Hat Pedal Chick Sensitivity 0..127

4ErrH Hi-Hat Pedal Splash Sensitivity 0..127

4FrrH Trigger Bank Preset parameter transfer end marker

50rrH Head/Rim Dyn Level 0..15

51rrH Head/Rim Dyn Time 0..15 (corresponds to 0-60ms decay time)

^{*}Positional Sensing: SAM5916 sends MIDI Controller CC#16 with value 0 (Center) till 127 (Outer).

^{**} Hi-Hat Pedal curve is select when sending NRPN 0x4C2C ("rr" = 0x2C = "HH Chick" note)

^{***} Parameter available for Bell only in case of "3-Way" mode selected

14.3.8 TRIGGER CURVE PACKET DESCRIPTION

	Description
0x5443	Packet Type = "TC" (Trigger Curve)
CRV ID	Curve ID (xx15)
VAL1	1st value of trigger curve (X=0)
VAL2	2nd value of trigger curve (X=MAX/8)
VAL9	Last value of trigger curve (X=MAX)

14.3.9 OTHER NRPN CONTROLS

NRPN # (High Low)	Description	Power-up default
3703h	Fixed Hi-Hat 0=OFF, else ON (fixed Closed HH)	0
3704h	Snare Style 0=Rimshot, 1=Crosstick, 2=X-Fade	0
3705h	X-Fade Balance 0=Rimshot only, to 7Fh=Crosstick only	40h
3706h	MIX-IN volume 0=mute 40h=-12dB 7Fh=0dB	0 (muted)
3707h	Synth Master volume 0 (mute) to 7Fh (max)	7Fh
	"Playback" Routing bus switches: bits 6/5 : Master (Main) Out L/R	
370Fh	bits 4/3 : Monitor Out L/R	
	bits 2/1 : Headphone Out L/R	
3710h	USB Audio IN Level 0=mute 40h= -12dB 7Fh=0dB	40h (-12dB)
3740h	LED Brightness Control 0=LEDs OFF, till 5=highest brightness	5
	Bluetooth commands: 0 = triggers disconnect A2DP link	40h (BT ON)
	1 = Pairing mode	
3741h	3Fh = BT Module OFF	
	40h = BT Module ON	
	7Fh = BT module factory reset	

3742h	Power OFF Control 0=OFF, 1=30min, 2=1h, 3=2h, 4=4h	0
375Fh	Song (PC-IN) volume 0 (mute) 40h= -12dB 7Fh=0dB	40h (-12dB)
Output Levels		
3806h	Master Output Balance 0=left only40h=Center to 7Fh=right only	40h (Center)
3807h	Master Output Level 0=mute, to 7Fh=0dB	40h (-6dB)
3906h	Monitor Output Balance 0=left only40h=Center to 7Fh=right only	40h (Center)
3907h	Monitor Output Level 0=mute, to 7Fh=0dB	40h (-6dB)
3A06h	Headphone Output Balance 0=left only40h=Center to 7Fh=right only	40h (Center)
3A07h	Headphone Output Level 0=mute, to 7Fh=0dB	40h (-6dB)
3B00h	Direct Out 1 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B01h	Direct Out 2 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B02h	Direct Out 3 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B03h	Direct Out 4 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B04h	Direct Out 5 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B05h	Direct Out 6 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B06h	Direct Out 7 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B07h	Direct Out 8 Level 0=mute, to 7Fh=0dB	7Fh (0dB)
3B08h	S/PDIF Out Level 0=mute 0x40= -12dB 7Fh=0dB	7Fh (0dB)
3B10h	Direct Out 1 & 2 mode 0=mono, 1=stereo	1 (stereo)
3B11h	Direct Out 3 & 4 mode 0=mono, 1=stereo	1 (stereo)
3B12h	Direct Out 5 & 6 mode 0=mono, 1=stereo	1 (stereo)
3B13h	Direct Out 7 & 8 mode 0=mono, 1=stereo	1 (stereo)
3B1Fh	Request Outputs levels (see below for response message)	

14.3.10 OUTPUT LEVELS RESPONSE PACKET DESCRIPTION (HOST -> 5916)

Data	Description
0x4452	Packet Type = "DR" (Direct Outputs Level Response)
MAIN L	Main Out L peak level
MAIN R	Main Out R peak level
MONITOR L	Monitor Out L peak level
MONITOR R	Monitor Out R peak level
HP L	Headphone Out L peak level
HP R	Headphone Out R peak level
OUT 1	Direct Out 1 peak level
OUT 2	Direct Out 2 peak level
OUT 3	Direct Out 3 peak level
OUT 4	Direct Out 4 peak level
OUT 5	Direct Out 5 peak level
OUT 6	Direct Out 6 peak level
OUT 7	Direct Out 7 peak level
OUT 8	Direct Out 8 peak level
S/PDIF Out L	S/PDIF Output peak level left
S/PDIF Out R	S/PDIF Output peak level right
USB Audio In L	USB Audio In peak level left
USB Audio In R	USB Audio In peak level right

14.3.11 MIDI SETTINGS

MIDI Settings

NRPN# (High Low)	Description	Power-up default
3720h	MIDI Channel 0=Off, 116	10
3721h	Local Control 0=Off, 1=On	1 (On)
3722h	MIDI Input Soft through 0=Off, 1=to MIDI-Out, 2=to USB MIDI, 3=to both	0 (Off)

3723h	USB MIDI Soft through 0=Off, 1=to MIDI-Out	0 (Off)
3724h	HH Pedal CC 0=Off, 1,2,4,11,16,17,18,19	4
3725h	Snare CC 0=Off, 1,2,4,11,16,17,18,19	16
3726h	Ride CC 0=Off, 1,2,4,11,16,17,18,19	17
3727h	Toms/AUX CC 0=Off, 1,2,4,11,16,17,18,19	18
3728h	Kit Volume CC#7 0=Off,1=On	1 (On)

14.3.12 METRONOME SETTINGS

NRPN # (High Low)	Description	Power-up default	Drum Kit
1701h	Metronome click sound selection values depending on sound bank content	1	Х
1A01h	Metronome click level 0 (mute) to 7Fh (max)	7Fh	Χ
0F01h	"Click" Routing bus switches (see description of NRPN 370FH, page 7)		
3763h	Metronome ON/OFF 0 = OFF, else ON	0	Х
3764h	Set Tempo* 0127 = 20274 BPM (20+value*2)	120	Х
3765h	Numerator 115 beats	4	Х
3766h	Denominator 04 = 1/1, 1/2,1/4, 1/8, 1/16	2 (1/4)	Х
3767h	Interval 05 = 1/2, 3/8, 1/4, 1/8, 1/12, 1/16	2 (1/4)	Х
3768h	Accent On/Off 0 = OFF, else ON	1 (ON)	-
376Ah	Tap ON/OFF 0 = OFF, else ON	0	-
376Bh	Tap Channel (MIDI note of drum trigger)	0	-
376Ch	Tap Head/Rim (2nd MIDI note, 0=not used)	0	-

15 TECHNICAL DATA

nstruments Effect types	More than 400
Effect types	Work than 100
	Pad Compressor & 3-band full parametic EQ per pad
	Output compressor & 4-band full parametricr EQ for headphone and master-output
	Ambient Reverb: Sample-based per instrument
	2. Room Reverb: 12 algorithms 3. Instrument Reverb: 12 algorithms
	Multi Effects: 9 algorithms
Jser sample import	100 Wave
	File format: WAV (only PCM format)
	(44.1KHz/48KHz, 16/24 bit, up to 8M samples per channel [≈3 min Stereo]) Mono or stereo channels
Storage	USB / internal Memory Flash 2GB
Recorder	Realtime
	File-Format: WAV (44.1 kHz, 16 Bit)
Display	128 x 64px OLED
external memory	External USB-Stick
Connections	TRIGGER INPUTS: 10 x ¼" TRS socket
	HI-HAT CONTROL: 1 x ¼" TRS socket
	MASTER OUT: 2 pcs ¼" TS socket
	HEADPHONES: ¼" TRS socket (Stereo)
	MIX IN: ¼" TRS socket (Stereo)
	MIDI (IN, OUT/THRU)
	COMPUTER-CONNECTION: USB B-Type (USB Hi-Speed AUDIO/MIDI)
	AC IN (IEC C7)
Wireless connections	Bluetooth
Recording (G3 → DAW)	Sampling rate (original): 48 kHz
	Sampling rate: (with converter): 96 kHz, 44,1 kHz
	Recording: 6 channels (depending on software version)
	Play: 2 channels
Power supply	AC 100V-240V 50Hz - 60Hz
Electricity consumption	55 W (EN60065)
Dimensions	243 (W) x 215 (D) x 91 (H)
Veight	1.95 kg
Accessories included	Multilingual Quick Start guide with Safety Regulations, (Print)
	USB Dongle with Multilingual Quick Start Guide.
	4 Mains cables: Type A, Type C (CEE 7/16), Type F, Type I)
All appointment and as	* The number of power cables included varies depending on the country.
	rances are subject to change without notice. e technical data of the product as of the publication date of the document. Possible updated informatic